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ECHELON®

Proxy Statement and Annual Report to Stockholders

April 15, 2002

Dear Stockholder,

Last year was exceptional for Echelon. Despite a global economic slow down, we closed 2001 with our first-ever operating profit, grew revenues more than 55 percent, and increased earnings to 15 cents per share from 0 cents per share in 2000. We enter 2002 excited about our business and look forward to another year of growth in sales and profits.

We attribute Echelon's success to the quality of our products, the strength of our business model, the power of our underlying LONWORKS® technology platform and the enormous market opportunity for networking everyday devices.

A key factor in our success is the LONWORKS technology platform, which enables everyday devices in homes, buildings, factories, transportation, and other systems to communicate with one another and the Internet. This unique, highly reliable, low-cost networking technology allows our customers to get more from their products and services. When manufacturers use LONWORKS technology to design their products — which include items as diverse as thermostats, occupancy sensors, washing machines, semiconductor manufacturing equipment, or subway trains — they have the opportunity to lower costs, increase reliability, add new functionality, and speed time to market.

Echelon's business model is one of leverage, in which we sell solutions to original equipment manufacturers (OEMs), integrators, and service providers. We sell device manufacturers, such as Honeywell, the development tools, training and support they need to design intelligent devices. These OEM device manufacturers embed our technology into their products and might use \$5.00 to \$15.00 of Echelon hardware and software content in each of the products they sell through their distribution channels. Network integrators use our routers, modules and installation and maintenance software, along with products from OEMs, to create and deploy LONWORKS based systems.

In addition to our strong financial performance, this year saw many other important accomplishments. Among the highlights:

- We introduced several new products, including our ShortStack™ software, which enables existing devices with microcontrollers to quickly become LONWORKS networked and Internet-accessible, and the NodeBuilder® 3 Development Tool, which enables developers to quickly and easily design smart, communicating devices using Neuron® chips. We also previewed the newest members of our i.LON™ IP connectivity products for LONWORKS networks, the i.LON 10 Ethernet Adapter and i.LON 100 Internet Server.
- We purchased ARIGO GmbH, a company based in Beckum, Germany, our first acquisition. This acquisition is now fully integrated into Echelon and is a highly successful and important addition to our engineering capabilities and bandwidth.

Letter to
Stockholders

Notice of 2002 Annual
Meeting and Proxy
Statement

2001 Annual Report
to Stockholders

Consolidated
Financial
Statements

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- We reorganized and expanded the top management of the company with Bea Yormark becoming President and COO, Chris Stanfield becoming Executive Vice President and CFO, Frits Bruggink becoming Sr. Vice President, Marketing and Sales, Russ Harris becoming Sr. Vice President, Operations and Peter Mehrling becoming Sr. Vice President, Engineering.
- Bea Yormark and I met with President Bush and his top energy advisors at a special event held at the Department of Energy. There we presented a demonstration of how consumers could easily use LONWORKS devices in their homes to respond to real-time pricing from their utility provider.
- Samsung Electronics began commercial installations of LONWORKS based home appliances. Starting with 100 apartments in a residential complex in South Korea, the networks use Echelon's power line transceivers and our LNS network operating system to connect air conditioners, refrigerators, washing machines, microwave ovens and gateways to each other and to the Internet.
- In October, we moved into our new LONWORKS controlled headquarters in San Jose, California. This state-of-the-art, energy-efficient building is a showcase for Echelon's technology. The new facility integrates all the key building sub-systems — security, lighting, elevator, and HVAC systems — using LONMARK[®] certified devices from 25 different manufacturers.
- The Enel project in Italy continued to build momentum and began widespread deployment. With hundreds of thousands of smart LONWORKS enabled electric meters already installed in customers homes and a trained workforce of 2,600 installers, Enel appears to be well on track to reach its stated goal of 1 million new installations per month later in 2002.

I am often asked the question of what happens to Echelon after Enel completes deployment of their metering project in 2004. There are a few years between now and then and many things could happen, but I'd like to take a moment to describe what I see as major growth potential for Echelon on two fronts.

First, in our "core" business, I believe we will experience additional growth as we penetrate new OEM accounts and expand our presence in the ones we already have. This is an enormous opportunity that we have only begun to tap. Second, I see potential growth for Echelon from other service providers. As the business success of the Enel project becomes obvious, we believe other utilities, as well as service providers in other industries such as telecommunication and cable, will follow in Enel's footsteps. And, as large-scale LONWORKS networks are deployed, we believe our OEM customers will see new opportunities to sell their products and deliver LONWORKS related value-added services, and we believe that this, in turn, will fuel further growth in our core business.

Shortly after the close of the fiscal year, Echelon announced the acquisition of privately held BeAtHome.com, Inc. of Fargo, North Dakota. BeAtHome offers an award-winning, innovative, and intuitive software solution and value-added services platform for web-based monitoring and control applications to the home, commercial and utility markets. We are excited to add the exceptional team of people from BeAtHome to Echelon and believe that, when the BeAtHome platform is combined with the industry-leading networking products that Echelon already offers, it will provide a powerful tool that will speed the deployment of remote LONWORKS based monitoring and control solutions to utilities, homes, and businesses worldwide and create new on-going revenue opportunities for the company.

Echelon's growth is driven by our passion to innovate and provide the best solutions possible for the networking of everyday devices. I am proud of Echelon's accomplishments and of every one of our people. Echelon's strong results for the past year are due to our exceptional employees, dynamic customers, terrific suppliers, and committed shareholders. Thank you all.

Sincerely,



Kenneth Oshman
Chairman and CEO

This annual report includes a number of forward-looking statements that reflect our current views relating to future plans, events and financial performance. These statements are subject to certain risks and uncertainties, including uncertainties related to the development of markets for our products and services, future revenues, and other risks identified in Echelon's SEC filings. Actual results, events and performance may differ materially. In this report, words such as "look forward," "believe," "potential" and similar expressions identify forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. Echelon undertakes no obligation to release publicly the result of any revisions to these forward-looking statements that may be made to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

ECHELON CORPORATION

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON May 17, 2002 9:30 A.M. PACIFIC TIME

We cordially invite you to attend the 2002 Annual Meeting of Stockholders of Echelon Corporation. The meeting will be held on Friday, May 17, 2002 at 9:30 a.m., Pacific Time, at the Hilton San Jose & Towers, Almaden Ballroom One, located at 300 Almaden Boulevard, San Jose, CA 95110. At the meeting we will:

1. Elect two Class A directors for a term of three years and until their successors are duly elected and qualified;
2. Ratify the appointment of KPMG LLP as independent public accountants for the fiscal year ending December 31, 2002; and
3. Transact any other business as may properly come before the meeting or any postponement or adjournment thereof.

These items are fully discussed in the following pages, which are made part of this Notice. Stockholders who owned our common stock at the close of business on Monday, April 1, 2002 may attend and vote at the meeting. If you will not be attending the meeting, we request that you vote your shares as promptly as possible. You may be eligible to vote your shares in a number of ways. You may mark your votes, date, sign and return the Proxy or voting instruction form. Stockholders whose shares are registered in their own names may vote via the Internet at ADP Investor Communication Services' voting Web site (www.proxyvote.com) or telephonically by calling the telephone number shown on your Proxy Card. If you hold our shares with a broker or bank, you may also be eligible to vote via the Internet or to vote telephonically if your broker or bank participates in the proxy voting program provided by ADP Investor Communication Services. If your shares of common stock are held in an account with a broker or a bank participating in the ADP Investor Communication Services program, you may choose to vote those shares via the Internet at ADP Investor Communication Services' voting Web site (www.proxyvote.com) or telephonically by calling the telephone number shown on your voting form. See "Voting Via the Internet or By Telephone" in the Proxy Statement for further details. Any stockholder attending the meeting may vote in person, even though he, she or it has already returned a Proxy.

Sincerely,



M. Kenneth Oshman
Chairman of the Board and Chief Executive Officer

San Jose, California
April 15, 2002

ECHELON CORPORATION

PROXY STATEMENT FOR 2002 ANNUAL MEETING OF STOCKHOLDERS

INFORMATION CONCERNING SOLICITATION AND VOTING

General

Our Board of Directors is soliciting Proxies for the 2002 Annual Meeting of Stockholders to be held at the Hilton San Jose & Towers, Almaden Ballroom One, located at 300 Almaden Boulevard, San Jose, CA 95110 on Friday, May 17, 2002, at 9:30 a.m., Pacific Time, and at any postponement or adjournment thereof. The address of our principal executive office is 550 Meridian Avenue, San Jose, California 95126 and our telephone number at this address is 408-938-5200. This Proxy Statement contains important information for you to consider when deciding how to vote on the matters set forth in the attached Notice of Annual Meeting. Please read it carefully.

Proxy materials, which include the Proxy Statement, Proxy, letter to stockholders and Form 10-K for the fiscal year ended December 31, 2001, were first mailed to stockholders on or about April 16, 2002.

Costs of Solicitation

We will pay the costs of soliciting Proxies from stockholders. We are required to request brokers and nominees who hold our common stock in their name to furnish our Proxy materials to beneficial owners of such common stock. We may reimburse such firms and nominees for their reasonable expenses in forwarding the Proxy materials to these beneficial owners. Certain of our directors, officers and employees may solicit Proxies on our behalf, without additional compensation, personally or by written communication, telephone, facsimile or other electronic means.

QUESTIONS AND ANSWERS

Q: Who can vote at the meeting?

A: The Board of Directors set April 1, 2002 as the record date for the Annual Meeting. All stockholders who owned Echelon common stock on April 1, 2002 may attend and vote at the Annual Meeting. Each stockholder is entitled to one vote for each share of common stock held on all matters to be voted on. On April 1, 2002, 39,168,895 shares of our common stock were outstanding.

Q: How many votes do you need to hold the meeting?

A: Shares are counted as present at the meeting if you:

- are present and vote in person at the meeting; or
- have properly submitted a Proxy Card or voted by telephone or via the Internet.

A majority of Echelon's outstanding shares as of the record date must be present at the meeting in order to hold the meeting and conduct business. This is called a quorum.

Q: What proposals will be voted on at the meeting?

A: There are two proposals scheduled to be voted on at the meeting:

- Election of the nominees for director set forth in this Proxy Statement; and
- Ratification of the appointment of KPMG LLP as our independent public accountants for the fiscal year ending December 31, 2002.

Q: What is the voting requirement to approve each of the proposals?

A: For the election of directors, the two (2) individuals receiving the highest number of "FOR" votes will be elected. Proposal Two requires the affirmative "FOR" vote of a majority of the shares of our outstanding common stock represented, in person or by proxy, and entitled to vote.

Q: How are votes counted?

A: You may vote either "FOR" or "AGAINST" each nominee for the Board of Directors. You may vote "FOR," "AGAINST" or "ABSTAIN" on the other proposal. If you abstain from voting on the other proposal, it has the same effect as a vote against. If you just sign your Proxy Card with no further instructions, your shares will be counted as a yes vote "FOR" each Director and "FOR" ratification of the appointment of our independent public accountants. If you do not vote and you hold your shares in a brokerage account in your broker's name (this is called "street name"), your shares will not be counted in the tally of the number of shares cast "FOR," "AGAINST" or "ABSTAIN" on any proposal where your broker does not have discretionary authority to vote, and therefore will have the effect of reducing the number of shares needed to approve any of those items. However, these shares may be counted for the purpose of establishing a quorum for the meeting. Voting results are tabulated and certified by IVS Associates, Inc., an affiliate of ADP Investor Communication Services.

Q: How can I vote my shares in person at the meeting?

A: Shares held directly in your name as the stockholder of record may be voted in person at the meeting. If you choose to do so, please bring the enclosed Proxy Card or proof of identification to the meeting. If you hold your shares in street name, you must request a legal proxy from your stockbroker in order to vote at the meeting.

Q: How can I vote my shares without attending the meeting?

A: Whether you hold shares directly as a stockholder of record or beneficially in street name, you may vote without attending the meeting. You may vote by granting a proxy or, for shares held in street name, by submitting voting instructions to your stockbroker or nominee. In most cases, you will be able to do this by telephone, using the Internet or by mail. Please refer to the summary instructions included on your Proxy Card. For shares held in street name, the voting instruction card will be included by your stockbroker or nominee.

BY TELEPHONE OR THE INTERNET — If you have telephone or Internet access, you may submit your proxy by following the "Vote by Telephone" or "Vote by Internet" instructions on the Proxy Card.

BY MAIL — You may do this by signing your Proxy Card or, for shares held in street name, by following the voting instruction card included by your stockbroker or nominee and mailing it in the enclosed, postage prepaid envelope. If you provide specific voting instructions, your shares will be voted as you have instructed.

Q: How can I change my vote after I return my Proxy Card?

A: You may revoke your proxy and change your vote at any time before the final vote at the meeting. You may do this by signing a new Proxy Card with a later date or by attending the meeting and voting in person. Attending the meeting will not revoke your proxy unless you specifically request it.

Q: What is Echelon's voting recommendation?

A: Our Board of Directors recommends that you vote your shares "FOR" each of the two nominees to the Board of Directors and "FOR" ratification of the appointment of Echelon's independent public accountants.

Q: Where can I find the voting results of the meeting?

A: The preliminary voting results will be announced at the meeting. The final results will be published in our first quarterly report on Form 10-Q filed after the date of the meeting.

DEADLINE FOR RECEIPT OF STOCKHOLDER PROPOSALS

Our stockholders may submit proposals that they believe should be voted upon at the Annual Meeting or nominate persons for election to our Board of Directors. Pursuant to Rule 14a-8 under the Securities Exchange Act of 1934, as amended ("Rule 14a-8"), some stockholder proposals may be eligible for inclusion in our 2003 Proxy Statement. Any such stockholder proposals must be submitted in writing to the attention of the Assistant Secretary, Echelon Corporation, 550 Meridian Ave., San Jose, California 95126, no later than December 17, 2002, or the date which is 120 calendar days prior to the anniversary of the mailing date of this Proxy Statement. Stockholders interested in submitting such a proposal are advised to contact knowledgeable legal counsel with regard to the detailed requirements of applicable securities laws. The submission of a stockholder proposal does not guarantee that it will be included in our 2003 Proxy Statement.

Alternatively, under our Bylaws, a proposal or a nomination that the stockholder does not seek to include in our 2003 Proxy Statement pursuant to Rule 14a-8 may be submitted in writing to the Assistant Secretary, Echelon Corporation, 550 Meridian Ave., San Jose, California 95126, for the 2003 Annual Meeting of Stockholders not less than 20 days nor more than 60 days prior to the date of such meeting. Note, however, that in the event we provide less than 30 days notice or prior public disclosure to stockholders of the date of the 2003 Annual Meeting, any stockholder proposal or nomination not submitted pursuant to Rule 14a-8 must be submitted to us not later than the close of business on the tenth day following the day on which notice of the date of the 2003 Annual Meeting was mailed or public disclosure was made. For example, if we provide notice of our 2003 Annual Meeting on April 15, 2003, for a 2003 Annual Meeting on May 10, 2003, any such proposal or nomination will be considered untimely if submitted to us after April 25, 2003. For purposes of the above, "public disclosure" means disclosure in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service, or in a document publicly filed by us with the Securities and Exchange Commission (the "SEC"). As described in our Bylaws, the stockholder submission must include certain specified information concerning the proposal or nominee, as the case may be, and information as to the stockholder's ownership of our common stock. If a stockholder gives notice of such a proposal after the deadline computed in accordance with our Bylaws (the "Bylaw Deadline"), the stockholder will not be permitted to present the proposal to the stockholders for a vote at the 2003 Annual Meeting.

The rules of the SEC also establish a different deadline for submission of stockholder proposals that are not intended to be included in our Proxy Statement with respect to discretionary voting (the "Discretionary Vote Deadline"). The Discretionary Vote Deadline for the 2003 Annual Meeting is March 2, 2003, or the date which is 45 calendar days prior to the anniversary of the mailing date of this Proxy Statement. If a stockholder gives notice of such a proposal after the Discretionary Vote Deadline, our Proxy holders will be allowed to use their discretionary voting authority to vote against the stockholder proposal when and if the proposal is raised at the Annual Meeting.

Because the Bylaw Deadline is not capable of being determined until we publicly announce the date of our 2003 Annual Meeting, it is possible that the Bylaw Deadline may occur after the Discretionary Vote Deadline. In such a case, a proposal received after the Discretionary Vote Deadline but before the Bylaw Deadline would be eligible to be presented at the 2003 Annual Meeting and we believe that our Proxy holders at such meeting would be allowed to use the discretionary authority granted by the Proxy to vote against the proposal at such meeting without including any disclosure of the proposal in the Proxy Statement relating to such meeting.

We have not been notified by any stockholder of his, her or its intent to present a stockholder proposal from the floor at the 2002 Annual Meeting. The enclosed Proxy grants the Proxy holders

discretionary authority to vote on any matter properly brought before the 2002 Annual Meeting, including any stockholder proposals received between the date of this Proxy Statement and the Bylaw Deadline for the 2002 Annual Meeting, which is April 26, 2002, or the date which is ten calendar days after the date this Proxy Statement is mailed.

PROPOSAL ONE

ELECTION OF DIRECTORS

General

We currently have eight members on our Board of Directors. Our Board of Directors is divided into three classes, with each director serving a three-year term and one class being elected at each year's Annual Meeting of Stockholders. Directors M. Kenneth Oshman and Larry W. Sonsini are the Class A directors whose terms expire at the Annual Meeting of Stockholders to be held May 17, 2002. Directors Robert J. Finocchio, Jr., Armas Clifford Markkula, Jr. and Robert R. Maxfield are the Class B directors whose terms will expire at the 2003 Annual Meeting of Stockholders, and directors Richard M. Moley, Arthur Rock and M. Francesco Tatò are the Class C directors whose terms will expire at the 2004 Annual Meeting of Stockholders. All of the directors, including the Class A nominees, are incumbent directors. There are no family relationships among any of our directors or executive officers, including any of the nominees mentioned above. Unless otherwise instructed, the holders of Proxies solicited by this Proxy Statement will vote the Proxies received by them for the two Class A nominees. In the event that either nominee is unable or declines to serve as a director at the time of the Annual Meeting, the Proxy holders will vote for a nominee designated by the present Board of Directors to fill the vacancy. We are not aware of any reason that either nominee will be unable or will decline to serve as a director. The Board of Directors recommends a vote "FOR" the election of each of the Class A nominees listed above.

Nominees

The names of the members of our Board of Directors, including the Class A nominees, their ages as of April 1, 2002 and certain information about them, are set forth below.

<u>Name</u>	<u>Age</u>	<u>Principal Occupation</u>
M. Kenneth Oshman (3)	61	Chairman of the Board and Chief Executive Officer of Echelon
Robert J. Finocchio, Jr. (1)	50	Corporate director, private investor and part time professor
Armas Clifford Markkula, Jr. (1)	60	Vice Chairman of the Board of Directors of Echelon
Robert R. Maxfield (2)	60	Private investor
Richard M. Moley (2)	63	Private investor
Arthur Rock (1)	75	Principal of Arthur Rock & Co.
Larry W. Sonsini (3)	61	Chairman and Chief Executive Officer of Wilson Sonsini Goodrich & Rosati, P.C.
M. Francesco Tatò	69	Chief Executive Officer of ENEL S.p.A.

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- (1) Member of the Audit Committee.
 - (2) Member of the Compensation Committee.
 - (3) Denotes nominee for election at the 2002 Annual Meeting of Stockholders.

M. Kenneth Oshman has been Chief Executive Officer of our company since December 1988 and Chairman of our Board of Directors since September 1989. He also served as our President from 1988 to 2001. Mr. Oshman, with three associates, founded ROLM Corporation, a telecommunications equipment

company, in 1969. He was Chief Executive Officer, President and a director at ROLM from its founding until its merger with IBM in 1984. Following the merger, he became a Vice President of IBM and a member of its Corporate Management Board. He remained in that position until 1986. Prior to founding ROLM, Mr. Oshman was a member of the technical staff at Sylvania Electric Products from 1963 to 1969. Mr. Oshman also serves as a director of Sun Microsystems and Knight-Ridder. Mr. Oshman earned B.A. and B.S.E.E. degrees from Rice University and M.S. and Ph.D. degrees in Electrical Engineering from Stanford University.

Robert J. Finocchio, Jr. has been a director of our company since August 1999. Mr. Finocchio served as Chairman of the Board of Informix Corporation, an information management software company, from August 1997 to September 2000. From July 1997 until July 1999, Mr. Finocchio served as President and Chief Executive Officer of Informix. From December 1988 until May 1997, Mr. Finocchio was employed with 3Com Corporation, a global data networking company, where he held various positions, most recently serving as President, 3Com Systems. Mr. Finocchio also serves as a director of Altera Corp., Latitude Communications, Turnstone Systems and Resonate. Mr. Finocchio is also a Trustee of Santa Clara University. Mr. Finocchio holds a B.S. degree in economics from Santa Clara University and an M.B.A. degree from the Harvard Business School.

Armas Clifford Markkula, Jr. is the founder of our company and has served as a director since 1988. He has been Vice Chairman of Echelon's Board of Directors since 1989. Mr. Markkula was Chairman of the Board of Apple Computer, Inc. from October 1993 to February 1996 and was a director from 1977 to 1997. A founder of Apple, he held a variety of positions there, including President/Chief Executive Officer and Vice President of Marketing. Prior to founding Apple, Mr. Markkula was with Intel Corporation as Marketing Manager, Fairchild Camera and Instrument Corporation as Marketing Manager in the Semiconductor Division, and Hughes Aircraft as a member of the technical staff in the company's research and development laboratory. Mr. Markkula received B.S. and M.S. degrees in Electrical Engineering from the University of Southern California.

Robert R. Maxfield has been a director of our company since 1989. He was a co-founder of ROLM in 1969, and served as Executive Vice President and a director until ROLM's merger with IBM in 1984. Following the merger, he continued to serve as Vice President of ROLM until 1988. Since 1988, he has been a consulting professor in the Engineering-Economic Systems Development Department at Stanford University, and was a venture partner with Kleiner, Perkins, Caufield & Byers from 1989 to 1992. Dr. Maxfield received B.A. and B.S.E.E. degrees from Rice University, and M.S. and Ph.D. degrees in Electrical Engineering from Stanford University.

Richard M. Moley has been a director of our company since February 1997. Since August 1997, Mr. Moley has been a private investor. From July 1996 to August 1997, he served as Senior Vice President, Wide Area Business Unit and as a director of Cisco Systems, following Cisco Systems' purchase of StrataCom, Inc., where he was Chairman of the Board, Chief Executive Officer and President. Mr. Moley also serves as a director of Linear Technology, Inc., Netro Corporation and Spirent PLC. Mr. Moley received a B.S. degree in Electrical Engineering from Manchester University, an M.S. degree in Electrical Engineering from Stanford University and an M.B.A. degree from Santa Clara University.

Arthur Rock has been a director of our company since December 1988. Mr. Rock has been Principal of Arthur Rock & Co., a venture capital firm, since 1969. Mr. Rock serves as a Director Emeritus of Intel Corporation. Mr. Rock received a B.S. degree in Political Science and Finance from Syracuse University and an M.B.A. degree from the Harvard Business School.

Larry W. Sonsini has been a director of our company since August 1993. Mr. Sonsini serves as Chairman and Chief Executive Officer of the law firm of Wilson Sonsini Goodrich & Rosati, P.C., where he has practiced since 1966. Mr. Sonsini also serves as a director of Brocade Communications Systems, Commerce One, Lattice Semiconductor Corporation, LSI Logic, Novell, Simplex Solutions, Pixar and TIBCO Software. Mr. Sonsini received an A.B. degree in Political Science and Economics and an L.L.B. degree from the University of California at Berkeley.

M. Francesco Tatò has been a director of our company since September 2000. Mr. Tatò has been Chief Executive Officer of ENEL S.p.A., the Italian electric, gas, water and TLC utility, since June 1996 and

serves on ENEL's Board of Directors. From 1984 to 1986 and from 1991 to 1996, he was CEO of Arnoldo Mondadori Editore, one of Europe's leading publishing houses, serving also as CEO of the parent company, Fininvest Group, from 1993 to 1995. He also served as Chairman of the Board of Triumph Adler (Olivetti Group) from 1986 to 1989. From 1982 to 1984, Mr. Tatò served as Chairman of the Board of Mannesman Kienzle. He was in the Olivetti Group, an Italian information technology corporation, from 1956 to 1982, where he served as Vice President International Marketing of Olivetti General Electric, Managing Director of Olivetti Austria, British Olivetti and Deutsche Olivetti, and later Executive Vice President International Business of the Olivetti Group. Mr. Tatò is the author of several books on management and holds a degree in Philosophy from the University of Pavia, Italy.

Board Meetings and Committees

The Board of Directors held six meetings in 2001. Each director is expected to attend each meeting of the Board of Directors and those Committees on which he serves. Each incumbent director attended at least 75% of the Board of Directors and Committee meetings during 2001, except for Mr. Tatò, who attended 50% of the meetings held by the Board of Directors. Certain matters were approved by the Board of Directors or a Committee of the Board of Directors by unanimous written consent. The Board of Directors currently has a standing Audit Committee, Compensation Committee, and Stock Option Committee. The Audit Committee has a written charter that has been approved by the Board of Directors. The Board of Directors has no Nominating Committee or committee performing similar functions. Mr. Oshman is the sole member of the Stock Option Committee and such committee has the authority to grant stock options to non-officer employees of up to a maximum of 25,000 shares per person per year and, generally, up to an aggregate of 250,000 shares per year. The Compensation Committee and Audit Committee are described as follows:

<u>Name of Committees and Members</u>	<u>Functions of the Committees</u>	<u>Number of Meetings in Fiscal 2001</u>
AUDIT		2
Robert J. Finocchio, Jr.	— monitors and reviews corporate financial reporting and internal and external audits;	
Armas Clifford Markkula, Jr.	— provides the Board of Directors the results of its examinations and recommendations;	
Arthur Rock	— outlines to the Board of Directors improvements made, or to be made, in internal accounting controls;	
	— nominates independent auditors; and	
	— provides the Board of Directors with other information and materials necessary to make the Board of Directors aware of significant financial matters.	
COMPENSATION		2
Robert R. Maxfield	— reviews and approves the executive compensation policies; and	
Richard M. Moley	— administers the employee stock option plan.	

Director Compensation

We do not currently pay compensation to directors for serving in that capacity. Nonemployee directors are eligible to participate in our 1998 Director Option Plan which provides for the automatic grant of an option to purchase 25,000 shares of common stock to each nonemployee director who first becomes a nonemployee director after May 29, 1998. Each nonemployee director shall automatically be granted a 10,000 share option on the date of each annual meeting of stockholders, provided he or she is re-elected to the Board of Directors or otherwise remains on the Board of Directors on such date and provided that on such date he or she shall have served on the Board of Directors for at least the preceding six months. All options granted under this plan are fully vested. During 2001, Mr. Finocchio, Mr. Markkula, Mr. Maxfield, Mr. Moley, Mr. Rock, Mr. Tatò and Mr. Sonsini were each granted a 10,000

share option at a per share exercise price of \$24.82. In January 2002, Mr. Tatò's 10,000 share option granted in 2001, as well as his 25,000 share option granted in 2000, were cancelled at his request.

INDEPENDENT ACCOUNTANTS

On March 20, 2002, we determined to dismiss Arthur Andersen LLP as our principal independent accountants effective as of the issuance of Arthur Andersen LLP's report on their audit of our financial statements for the fiscal year ended December 31, 2001. On March 21, 2002, KPMG LLP was engaged to serve as our principal accountants effective for the fiscal year commencing January 1, 2002. The audit committee of our Board of Directors participated in and approved the decision to change independent accountants. The reports of Arthur Andersen LLP on the financial statements for our two most recent fiscal years contained no adverse opinion or disclaimer of opinion and were not qualified or modified as to uncertainty, audit scope, or accounting principles. In connection with Arthur Andersen LLP's audits for the two most recent fiscal years and through March 20, 2002, there have been no disagreements with Arthur Andersen LLP on any matter of accounting principles or practices, financial statement disclosure or auditing scope of procedure, which disagreements if not resolved to the satisfaction of Arthur Andersen LLP would have caused them to make reference thereto in their report on financial statements for such periods. During the two most recent fiscal years and through March 20, 2002, there have been no reportable events as defined in Regulation S-K, Item 304(a)(1)(v).

Effective March 21, 2002, we retained KPMG LLP to perform the annual audit of our financial statements for the fiscal year ending December 31, 2002. During the two most recent fiscal years and through March 21, 2002, we have not consulted with KPMG LLP with respect to the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on our financial statements, or any matter that was either the subject of a disagreement or a reportable event with Arthur Andersen LLP, as described in Regulation S-K, Item 304(a)(2).

PROPOSAL TWO

RATIFICATION OF APPOINTMENT OF INDEPENDENT PUBLIC ACCOUNTANTS

With authority granted by our Board of Directors, the Audit Committee of our Board of Directors has appointed KPMG LLP as our independent public accountants to audit our consolidated financial statements for the fiscal year ending December 31, 2002, and our Board of Directors recommends that the stockholders vote "FOR" ratification of such appointment.

Arthur Andersen LLP audited our financial statements for the year ended December 31, 2001. A representative of KPMG LLP is expected to be present at the Annual Meeting, will have the opportunity to make a statement if he or she so desires and is expected to be available to respond to appropriate questions from the stockholders.

SHARE OWNERSHIP BY PRINCIPAL STOCKHOLDERS AND MANAGEMENT

To our knowledge, the following table sets forth certain information with respect to beneficial ownership of our common stock, as of February 28, 2002, for:

- each person who we know beneficially owns more than 5% of our common stock;
- each of our directors;
- each of our named executive officers; and
- all of our directors and executive officers as a group.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to the securities. Except as indicated by footnote, and subject to applicable community property laws, each person identified in the table possesses sole voting and investment power with respect to all shares of common stock shown held by them. The number of shares of common stock

outstanding used in calculating the percentage for each listed person includes shares of common stock underlying options or warrants held by such person that are exercisable within 60 calendar days of February 28, 2002, but excludes shares of common stock underlying options or warrants held by any other person. Percentage of beneficial ownership is based on 39,128,458 shares of common stock outstanding as of February 28, 2002.

<u>Name</u>	<u>Shares Beneficially Owned</u>	<u>Percentage Beneficially Owned</u>
5% Stockholders:		
ENEL S.p.A. (1)	3,000,000	7.7%
Directors and Executive Officers:		
M. Kenneth Oshman (2)	6,087,761	15.2%
M. Francesco Tatò (1)	3,000,000	7.7%
Armas Clifford Markkula, Jr. (3)	1,804,538	4.6%
Beatrice Yormark (4)	989,899	2.5%
Oliver R. Stanfield (5)	976,699	2.5%
Arthur Rock (6)	755,063	1.9%
Robert R. Maxfield (7)	466,466	1.2%
Frederik Bruggink (8)	332,500	*
Peter A. Mehring (9)	262,500	*
Richard M. Moley (10)	173,089	*
Larry W. Sonsini (11)	50,761	*
Robert J. Finocchio, Jr. (12)	45,000	*
All directors and executive officers as a group (13 persons) (13)	14,944,276	36.4%

* Less than 1%.

- (1) Principal address is Viale Regina Margherita 137, Rome, Italy 00198. Mr. Tatò, a director of our company, is the Chief Executive Officer of ENEL and serves on ENEL's Board of Directors. Mr. Tatò disclaims beneficial ownership of the shares held by ENEL except to the extent of his pecuniary interest in ENEL.
- (2) Mr. Oshman's principal address is c/o Echelon Corporation, 550 Meridian Avenue, San Jose, California 95126. Includes 4,549,620 shares held by M. Kenneth Oshman and Barbara S. Oshman, Trustees of the Oshman Trust dated July 10, 1979, and 488,428 shares held by O-S Ventures, of which Mr. Oshman is general partner. Excludes an aggregate of 38,520 shares held by trusts, not for the benefit of Mr. Oshman, of which Mr. Oshman serves as trustee. Includes a warrant to purchase 249,713 shares of common stock exercisable within 60 calendar days of February 28, 2002. Includes options to purchase 800,000 shares of common stock exercisable within 60 calendar days of February 28, 2002, of which 299,999 are vested at February 28, 2002.
- (3) Includes 1,587,427 shares held by Armas Clifford Markkula, Jr. and Linda Kathryn Markkula, Trustees of the Restated Arlin Trust Dated December 12, 1990, and 151,928 shares held by the Markkula Family Limited Partnership. Mr. and Mrs. Markkula disclaim beneficial ownership of all but 27,500 of the shares held by the Markkula Family Limited Partnership. Includes a warrant to purchase 40,183 shares of common stock exercisable within 60 calendar days of February 28, 2002. Includes options to purchase 25,000 shares of common stock exercisable within 60 calendar days of February 28, 2002, all of which are vested at February 28, 2002.
- (4) Includes 827,400 shares held by Justin C. Walker and Beatrice Yormark, Trustees of the Walker-Yormark Family Trust Dated October 2, 1992. Includes options to purchase 162,499 shares of common stock exercisable within 60 calendar days of February 28, 2002, of which 118,749 shares are vested at February 28.
- (5) Includes 643,600 shares by held by Oliver Rueben Stanfield and Janet Helen Stanfield, Trustees of the Stanfield Family Trust UDT dated February 2, 2001. Includes an aggregate of 170,600 shares held in individual retirement accounts for the benefit of Mr. Stanfield and his wife. Includes options to purchase 162,499 shares of common stock exercisable within 60 calendar days of February 28, 2002, of which 118,749 shares are vested at February 28, 2002.
- (6) Includes 20,000 shares held by a trust for the benefit of Mr. Rock's wife, of which Mr. Rock serves as trustee, and as to which Mr. Rock disclaims beneficial ownership. Excludes 2,000 shares held by a trust, not for the benefit of Mr. Rock, of which Mr. Rock serves as trustee. Includes a warrant to purchase 29,187 shares

- exercisable within 60 calendar days of February 28, 2002. Includes options to purchase 37,500 shares of common stock exercisable within 60 calendar days of February 28, 2002, all of which are vested at February 28, 2002.
- (7) Includes a warrant to purchase 15,736 shares exercisable within 60 calendar days of February 28, 2002. Includes options to purchase 37,000 shares of common stock exercisable within 60 calendar days of February 28, 2002, all of which are vested at February 28, 2002.
 - (8) Includes options to purchase 37,500 shares of common stock exercisable within 60 calendar days of February 28, 2002, 22,916 of which are vested at February 28, 2002. We have the right, but not the obligation, to repurchase 19,584 shares owned by Mr. Bruggink if he should discontinue his employment with our company. This repurchase right expires on various dates through June 25, 2003.
 - (9) Includes options to purchase 212,500 shares of common stock exercisable within 60 calendar days of February 28, 2002, of which 95,832 shares are vested at February 28, 2002.
 - (10) Includes a warrant to purchase 10,000 shares of common stock exercisable within 60 calendar days of February 28, 2002. Includes options to purchase 62,500 shares of common stock exercisable within 60 calendar days of February 28, 2002, all of which shares are vested at February 28, 2002.
 - (11) Includes options to purchase 37,500 shares of common stock exercisable within 60 calendar days of February 28, 2002, all of which shares are vested at February 28, 2002.
 - (12) Represents options to purchase 45,000 shares of common stock exercisable within 60 calendar days of February 28, 2002, all of which shares are vested at February 28, 2002.
 - (13) Includes warrants to purchase an aggregate of 344,819 shares of common stock exercisable within 60 calendar days of February 28, 2002. Includes options to purchase an aggregate of 1,619,998 shares of common stock exercisable within 60 calendar days of February 28, 2002, of which 901,245 shares are vested at February 28, 2002. We have the right, but not the obligation, to repurchase 19,584 shares owned by one of our officers if he should discontinue his employment with our company. This repurchase right expires on various dates through June 25, 2003.

OTHER INFORMATION

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires our executive officers, directors and persons who own more than 10% of a registered class of our equity securities to file certain reports with the SEC regarding ownership of, and transactions in, our securities. Such officers, directors and 10% stockholders are also required by the SEC to furnish us with copies of all Section 16(a) forms that they file.

Based solely on our review of such forms furnished to us and written representations from certain reporting persons, we believe that all filing requirements applicable to our executive officers, directors and more than 10% stockholders were complied with during fiscal year 2001.

Certain Transactions

Loans to Employees

In March 1998, Peter Mehring, our Senior Vice President of Engineering, was granted an option to purchase 200,000 shares of common stock pursuant to our 1997 Stock Plan at a per share exercise price of \$2.00. The option vests ratably over four years and provides for the exercise of unvested shares. In February 1998, Mr. Mehring exercised an option for 50,000 unvested shares and executed a promissory note in the principal amount of \$100,000 payable to our company. The note was a full recourse note, was secured by the shares and bore interest at the annual rate of 5.7%. The note and the accrued interest thereon were paid off in full on January 31, 2001.

In December 2000, we advanced \$300,000 to Mr. Mehring against his scheduled full compensation for calendar year 2001. The advance was repaid in full to our company in 24 equal installments of \$12,500 on each Echelon payroll date during 2001.

In April 2001, we loaned Mr. Mehring an aggregate of \$1,000,000 which Mr. Mehring used to pay his federal income taxes. Mr. Mehring issued to us two promissory notes, one of which is secured by a second

deed of trust on his primary residence and the other of which is secured by a second deed of trust on a second residence. Each note is in the principal amount of \$500,000 and bears interest at the rate of 4.54% per annum, compounded monthly. The interest accruing under each note is due and payable in monthly installments over the three-year term of the note, and the principal is due and payable on April 6, 2004, subject to earlier repayment upon the occurrence of certain events.

In December 2000, we loaned Thad Starkey, our former Vice President of Operations, \$250,000 which Mr. Starkey used to pay his California state income taxes. Mr. Starkey issued to us a promissory note secured by a second deed of trust on his primary residence. The note bears interest at the rate of 6.10% per annum, compounded monthly. The interest accruing under the note is due and payable in monthly installments over the three-year term of the note, and the principal is due and payable on December 29, 2003, subject to earlier repayment upon the occurrence of certain events.

In April 2001, we loaned Mr. Starkey \$500,000 which Mr. Starkey used to pay his federal income taxes. Mr. Starkey issued to us a promissory note secured by Mr. Starkey's personal property. The note bears interest at the rate of 4.54% per annum, compounded monthly. The interest accruing under the note is due and payable in monthly installments over the three-year term of the note, and the principal is due and payable on April 16, 2004, subject to earlier repayment upon the occurrence of certain events.

On October 29, 2001, we loaned Russell Harris, our Senior Vice President of Operations, \$1,000,000 to purchase a principal residence. Mr. Harris issued to us a promissory note secured by residential real estate. The note bears interest at the rate of 4.5% per annum, compounded monthly. The interest accruing under the note is due and payable in monthly installments over the nine year term of the note, and the principal is due and payable on October 29, 2010, subject to earlier repayment upon the occurrence of certain events.

On December 31, 2001, we loaned Frederik Bruggink, our Senior Vice President of Sales and Marketing, \$700,000 to exercise stock options. Mr. Bruggink issued to us a promissory note secured by a security interest in personal assets. The note bears interest at the rate of 2.48% per annum, compounded monthly. The interest accruing under the note is due and payable in monthly installments over the one year term of the note, and the principal is due and payable on December 31, 2002, subject to earlier repayment upon the occurrence of certain events.

On April 2, 2002, we loaned Mr. Bruggink, through our Dutch subsidiary, 239,690 (approximately \$211,000) to reimburse us for tax withholding amounts remitted to the Dutch tax authorities on Mr. Bruggink's behalf due to a change in the Dutch tax policy. The loan bears interest at the rate of 7.0% per annum, compounded monthly. The interest accruing under the note is due and payable in monthly installments over the six-month term of the note, and the principal is due and payable on September 30, 2002, subject to earlier repayment upon the occurrence of certain events.

Agreements with ENEL

Pursuant to a research and development and technological cooperation agreement, dated June 28, 2000, as amended, between our company and ENEL Distribuzione SpA, an affiliate of ENEL S.p.A. ("ENEL"), we are cooperating with ENEL to integrate our LONWORKS system into ENEL's remote metering management project in Italy. Under this project, ENEL intends to provide digital electricity meters and a complete home networking infrastructure to Italian households over a three-year period. If the ENEL project achieves its targeted volumes during 2002, we believe that revenue for the year ending December 31, 2002 arising out of this project may be approximately 60% of our total revenue for the year. We continue to devote significant product development resources to this project.

Pursuant to a common stock purchase agreement, dated June 30, 2000, between our company and ENEL, ENEL agreed to purchase, for cash, three million newly issued shares of our common stock for a purchase price to be based on the average trading price prior to the closing (subject to a minimum price of \$87.3 million and a maximum price of \$130.9 million). The closing of this stock purchase occurred on September 11, 2000. Based on the average price of our common stock prior to that date, the total purchase price for the three million shares was \$130.9 million and after deducting expenses associated with the transaction, we received \$130.7 million. Until the earlier of September 11, 2003 or 30 days following the

termination of the research and development and technological cooperation agreement with ENEL Distribuzione, ENEL shall not, except under limited circumstances, sell or otherwise transfer such shares. The stock purchase agreement also gives ENEL the right to nominate a member of our Board of Directors as long as ENEL owns at least two million shares of our common stock. As a condition to the closing of the stock purchase agreement, our directors agreed to enter into a voting agreement with ENEL in which each of them agreed to vote the shares of our company's common stock that they beneficially own or control in favor of ENEL's nominee to our Board of Directors. M. Francesco Tatò has served as ENEL's representative on our Board of Directors since September 2000.

Pursuant to a registration rights agreement, dated September 11, 2000, between our company and ENEL, ENEL may, subject to certain conditions and limitations, request that we register the shares purchased under the common stock purchase agreement. In the event we elect to register any of our securities, ENEL may, subject to certain limitations, include the shares purchased under the common stock purchase agreement in such registration.

Stock Option Grants

In addition to option grants described under "Executive Compensation — Option Grants in Last Fiscal Year", in September 2001, we granted Mr. Harris a stock option to purchase 150,000 shares of common stock at a per share exercise price of \$16.44. The option terminates on September 4, 2011 and vests as to one-fourth of the shares on September 4, 2002 and as to one-forty-eighth of the shares at the end of each month thereafter, subject to Mr. Harris' continued employment with our company.

In addition to option grants described under "Proposal One — Election of Directors — Director Compensation" and "Executive Compensation — Option Grants in Last Fiscal Year", we granted the following management stock options since the beginning of our 2002 fiscal year:

In February 2002, Mr. Bruggink was granted a stock option to purchase 60,000 shares of common stock at a per share exercise price of \$16.35. The option terminates on February 22, 2012 and vests as to one-fourth of the shares on February 22, 2003 and as to one-forty-eighth of the shares at the end of each month thereafter, subject to Mr. Bruggink's continued employment with our company.

In February 2002, Mr. Harris was granted a stock option to purchase 50,000 shares of common stock at a per share exercise price of \$16.35. The option terminates on February 22, 2012 and vests as to one-fourth of the shares on February 22, 2003 and as to one-forty-eighth of the shares at the end of each month thereafter, subject to Mr. Harris' continued employment with our company.

In February 2002, Mr. Mehring was granted a stock option to purchase 60,000 shares of common stock at a per share exercise price of \$16.35. The option terminates on February 22, 2012 and vests as to one-fourth of the shares on February 22, 2003 and as to one-forty-eighth of the shares at the end of each month thereafter, subject to Mr. Mehring's continued employment with our company.

In February 2002, Mr. Oshman, was granted a stock option to purchase 200,000 shares of common stock at a per share exercise price of \$16.35. The option terminates on February 22, 2012 and vests as to one-fourth of the shares on February 22, 2003 and as to one-forty-eighth of the shares at the end of each month thereafter, subject to Mr. Oshman's continued employment with our company. The option may be exercised prior to full vesting, subject to Mr. Oshman entering into a restricted stock purchase agreement with respect to unvested shares.

In February 2002, Mr. Stanfield was granted a stock option to purchase 100,000 shares of common stock at a per share exercise price of \$16.35. The option terminates on February 22, 2012 and vests as to one-fourth of the shares on February 22, 2003 and as to one-forty-eighth of the shares at the end of each month thereafter, subject to Mr. Stanfield's continued employment with our company.

In February 2002, Beatrice Yormark, our President and Chief Operating Officer, was granted a stock option to purchase 100,000 shares of common stock at a per share exercise price of \$16.35. The option terminates on February 22, 2012 and vests as to one-fourth of the shares on February 22, 2003 and as to one-forty-eighth of the shares at the end of each month thereafter, subject to Ms. Yormark's continued employment with our company.

Air Travel Arrangement

From time to time, Mr. Oshman uses private air travel services for business trips for himself and for any employees accompanying him. These private air travel services are provided by certain entities controlled by Mr. Oshman or Mr. Markkula. Our net cash outlay with respect to such private air travel services is no greater than comparable first class commercial air travel services. Such net outlays to date have not been material.

Legal Services

During fiscal year 2001, the law firm of Wilson Sonsini Goodrich & Rosati, P.C. acted as principal outside counsel to our company. Mr. Sonsini, a director of our company, is a member of Wilson Sonsini Goodrich & Rosati, P.C. We believe that the services performed by Wilson Sonsini Goodrich & Rosati, P.C. were provided on terms no more favorable than those with unrelated parties.

EXECUTIVE COMPENSATION

Summary Compensation Table

The following table sets forth information concerning the compensation that we paid during the last three fiscal years to our Chief Executive Officer and our four other most highly compensated executive officers who earned more than \$100,000 during the fiscal year ended December 31, 2001. All option grants were made under our 1997 stock plan.

Name and Principal Position	Fiscal Year	Annual Compensation			Long-Term Compensation Awards	All Other Compensation (\$)(2)
		Salary (\$)	Bonus (\$)	Other Annual Compensation (\$)(1)	Securities Underlying Options (#)	
M. Kenneth Oshman <i>Chairman of the Board and Chief Executive Officer</i>	2001	1(3)	—	—	250,000	1,584
	2000	1(3)	—	—	100,000	1,584
	1999	1(3)	—	—	150,000	1,584
Beatrice Yormark <i>President and Chief Operating Officer</i>	2001	300,000	—	—	50,000	1,531
	2000	275,000	—	—	50,000	1,531
	1999	260,000	—	—	75,000	1,531
Oliver R. Stanfield <i>Executive Vice President & Chief Financial Officer</i>	2001	300,000	—	—	50,000	1,502
	2000	275,000	—	—	50,000	1,386
	1999	260,000	—	—	75,000	1,386
Peter A. Mehring <i>Senior Vice President of Engineering</i>	2001	300,000	—	—	50,000	1,320
	2000	275,000	—	—	50,000	1,320
	1999	250,000	—	—	75,000	1,307
Frederik H. Bruggink <i>Senior Vice President of Sales and Marketing</i>	2001	250,000	—	45,246	50,000	1,584
	2000	220,000	—	88,640	50,000	1,584
	1999	210,000	—	89,952	50,000	1,584

(1) Consists of sales commissions.

(2) Consists of premiums paid by the Company for life insurance coverage.

(3) Mr. Oshman requested that his total cash compensation for the fiscal years ending December 31, 1999, 2000 and 2001 be set at \$1.00.

Option Grants in Last Fiscal Year

The following table sets forth certain information with respect to stock options granted to our Chief Executive Officer and our four other most highly compensated executive officers during the fiscal year ended December 31, 2001. We have never granted any stock appreciation rights. All option grants were made under our 1997 stock plan.

Name	Individual Grants					Potential Realizable Value At Assumed Annual Rates of Stock Price Appreciation For Option Term \$(5)	
	Number of Securities Underlying Options Granted (#)	% of Total Options Granted to Employees In Fiscal Year (%) (3)	Exercise Price Per Share (\$) (4)	Expiration Date		5%	10%
M. Kenneth Oshman	250,000 (1)	10.0	16.668	2/23/2011		2,623,748	6,649,094
Beatrice Yormark	50,000 (2)	2.0	11.61	4/10/2011		365,073	925,168
Oliver R. Stanfield	50,000 (2)	2.0	11.61	4/10/2011		365,073	925,168
Peter A. Mehring	50,000 (2)	2.0	11.61	4/10/2011		365,073	925,168
Frederik H. Bruggink	50,000 (2)	2.0	11.61	4/10/2011		365,073	925,168

- (1) This option was granted on February 23, 2001 and vests as to one-fourth of the shares on February 23, 2002 and as to one-forty-eighth of the shares at the end of each month thereafter, subject to the employee's continued employment with our company. This option may be exercised prior to full vesting, subject to the employee entering into a restricted stock purchase agreement with respect to unvested shares.
- (2) All of these options were granted on April 10, 2001 and vest as to one-fourth of the shares on April 10, 2002 and as to one-forty-eighth of the shares at the end of each month thereafter, subject to the employee's continued employment with our company.
- (3) Based on a total of 2,490,225 options granted to all employees in the fiscal year ended December 31, 2001.
- (4) The exercise price per share is equal to the closing price of our common stock on the market trading day immediately preceding the date of grant.
- (5) Potential gains are net of the exercise price but before taxes associated with the exercise. The 5% and 10% assumed annual rates of compounded stock appreciation based upon the deemed fair market value are mandated by the rules of the SEC and do not represent our estimate or projection of the future common stock price. Actual gains, if any, on stock option exercises are dependent on our future financial performance, overall market conditions and the option holders' continued employment through the vesting period. There can be no assurance that the amounts reflected in this table will be achieved.

Aggregated Option Exercises in Last Fiscal Year and Fiscal Year-End Option Values

The following table sets forth our Chief Executive Officer and our four other most highly compensated executive officers information concerning shares acquired upon exercise of stock options in the fiscal year ended December 31, 2001 and exercisable and unexercisable options held as of December 31, 2001.

Name	Shares Acquired on Exercise (#)	Value Realized \$(1)	Number of Securities Underlying Unexercised Options at December 31, 2001 (#) (2)		Value of Unexercised In-the-Money Options at December 31, 2001 \$(3)	
			Exercisable	Unexercisable	Exercisable	Unexercisable
M. Kenneth Oshman	—	—	600,000 (4)	—	1,780,550	—
Beatrice Yormark	107,500	1,777,487	255,833 (5)	79,167	2,293,875	127,500
Oliver R. Stanfield	110,400	2,143,836	265,833 (6)	79,167	2,557,367	127,500
Peter A. Mehring	—	—	200,000 (7)	50,000	1,319,275	127,500
Frederik H. Bruggink	295,000	3,599,600	20,833 (8)	79,167	—	127,500

- (1) The value realized is based on the closing price of our common stock on the date of exercise, minus the per share exercise price, multiplied by the number of shares exercised.

- (2) All options granted under our 1988 stock option plan and certain options granted to our officers under our 1997 stock plan may be exercised immediately upon grant and prior to full vesting, subject to the optionee entering into a restricted stock purchase agreement with respect to unvested shares.
- (3) The value of underlying securities is based on the \$14.16 per share closing price of our common stock on December 31, 2001 minus the aggregate exercise price.
- (4) Includes 222,916 vested shares and 377,084 unvested shares as of December 31, 2001.
- (5) Includes 221,458 vested shares and 34,375 unvested shares as of December 31, 2001.
- (6) Includes 231,458 vested shares and 34,375 unvested shares as of December 31, 2001.
- (7) Includes 127,083 vested shares and 72,917 unvested shares as of December 31, 2001.
- (8) Includes 20,833 vested shares and no unvested shares as of December 31, 2001.

Compensation Committee Interlocks and Insider Participation

During 2001, the Compensation Committee was comprised of Robert R. Maxfield and Richard M. Moley, both of whom were nonemployee directors. No interlocking relationship exists between any member of our Board of Directors or Compensation Committee and the Board of Directors or Compensation Committee of any other company, nor has any such interlocking relationship existed in the past.

REPORT OF THE COMPENSATION COMMITTEE OF THE BOARD OF DIRECTORS

The Compensation Committee sets the compensation of our Chief Executive Officer, reviews the design and effectiveness of compensation programs for other key executives, and approves stock option grants for our employees. The Committee is comprised entirely of outside directors who have never served as officers of our company.

The goals of the Compensation Committee are to align compensation with our performance and objectives and to attract, retain and reward executive officers and employees whose contributions are critical to the long-term success of our company.

The primary components of our executive compensation package are salary, commissions for sales executives and stock options. We set our compensation package to be competitive with the marketplace.

Salary

The level of base salary for executive officers is set based upon their scope of responsibility, level of experience and individual performance. The salary range for each position is reviewed against the Radford Survey (a third-party compensation survey) data for high-tech companies with similar sales volumes located in the same geographic area. Additionally, the Compensation Committee takes into account general business and economic conditions and current circumstances of our company.

Commission for sales executives

Our 2001 sales commission plan provided the opportunity for commission payments based on meeting our revenue objectives. These plans were set at the beginning of the fiscal year.

Stock options

The Compensation Committee believes that the granting of stock options is an important method of rewarding and motivating our employees by aligning employees' interests with our stockholders. The Compensation Committee also recognizes that a stock incentive program is a necessary element in a competitive compensation package. The program utilizes a vesting schedule to encourage our employees to continue in the employ of our Company and to encourage employees to maintain a long-term perspective. In determining the size of stock option grants, the Compensation Committee focuses primarily on the employees' current and expected future value to our company. The Compensation Committee also considers the number of unvested options held by the employee.

Management bonus plan

On December 14, 2001, the Compensation Committee, with the approval of our Board of Directors on February 22, 2002, approved a management bonus plan for certain of our officers that provides for potential cash bonus awards, with target bonuses ranging from approximately \$18,000 per year to approximately \$114,000 per year (contingent on the realization of profit targets), for the fiscal year ending December 31, 2002.

Compensation of the Chief Executive Officer

On December 14, 2000, Mr. Oshman requested that his total compensation for the fiscal year ending December 31, 2001 be set at \$1.00.

In February 2001, the Compensation Committee, in consultation with the Board of Directors, granted Mr. Oshman an option to purchase 250,000 shares of our common stock at an exercise price of \$16.668, the then current fair market value. Twenty-five percent of the option vests on February 23, 2002. The option vests at a rate of 1/48 per month thereafter until fully vested on February 23, 2005.

On December 14, 2001, the Compensation Committee, with the approval of our Board of Directors on February 22, 2002, set Mr. Oshman's base salary at \$100,000 with a targeted cash bonus, in connection with our management bonus plan, of approximately \$400,000 (contingent on the realization of profit targets) for the fiscal year ending December 31, 2002.

Compensation Committee

Robert R. Maxfield

Richard M. Moley

REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

The Audit Committee of our Board of Directors serves as the representative of our Board of Directors for general oversight of our financial accounting and reporting process, system of internal control, audit process, and process for monitoring compliance with laws and regulations. Our management has primary responsibility for preparing our financial statements and our financial reporting process. Our independent accountants, Arthur Andersen LLP for our fiscal year 2001 financial statements, are responsible for expressing an opinion on the conformity of our fiscal year 2001 audited financial statements to generally accepted accounting principles. In this context, the Audit Committee hereby reports as follows:

1. The Audit Committee has reviewed and discussed the audited financial statements with our management.
2. The Audit Committee has discussed with the independent accountants the matters required to be discussed by SAS 61 (Codification of Statements on Auditing Standards, AU 380), as modified or supplemented.
3. The Audit Committee has received the written disclosures and the letter from the independent accountants required by Independence Standards Board Standard No. 1 (Independence Standards Board Standard No. 1, Independence Discussions with Audit Committees), as modified or supplemented, and has discussed with the independent accountants the independent accountants' independence.
4. Based on the review and discussion referred to in paragraphs (1) through (3) above, the Audit Committee recommended to our Board of Directors, and our Board of Directors has approved, that the audited financial statements be included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2001, for filing with the SEC.

Our Board of Directors has adopted a written charter for the Audit Committee, a copy of which was attached to the Proxy Statement for the 2001 Annual Meeting of Stockholders. Each of the members of the Audit Committee is independent as defined under the listing standards of the National Association of Securities Dealers.

Audit Committee

Robert J. Finocchio, Jr.
Armas Clifford Markkula, Jr.
Arthur Rock

AUDIT AND RELATED FEES

Audit Fees

Arthur Andersen LLP billed us an aggregate of \$165,000 in fees for professional services rendered in connection with the audit of our financial statements for the most recent fiscal year and the reviews of the financial statements included in each of our Quarterly Reports on Form 10-Q during the fiscal year ended December 31, 2001.

Financial Information Systems Design and Implementation Fees

Arthur Andersen LLP did not provide any services in connection with the design and implementation of financial information systems during 2001.

All Other Fees

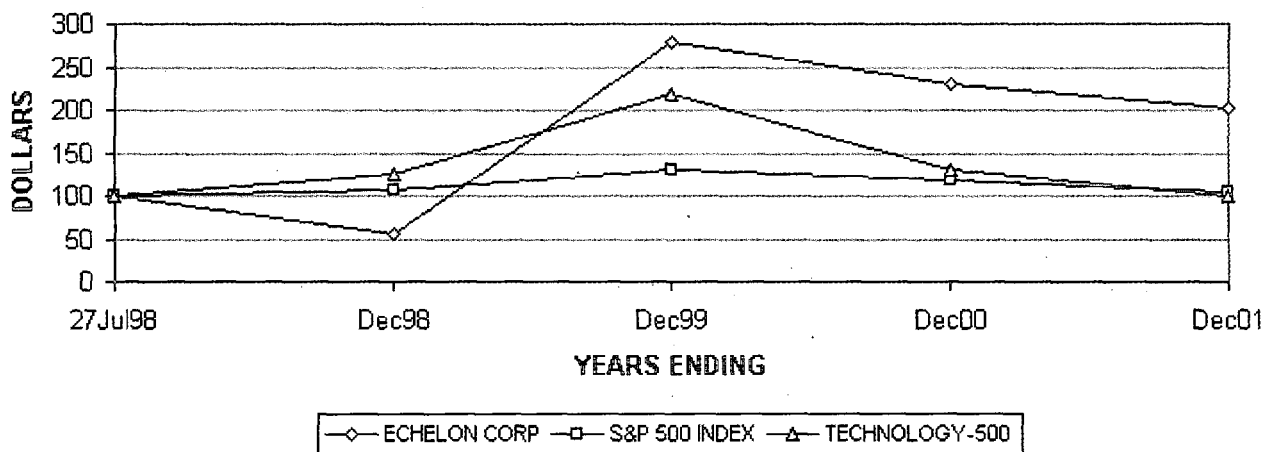
Arthur Andersen LLP billed us an aggregate of \$162,325 in fees for tax compliance and consulting services rendered to us and our affiliates for the fiscal year ended December 31, 2001.

The Audit Committee has determined that the provision of information technology services and other non-audit services is compatible with Arthur Andersen LLP's independence.

STOCK PRICE PERFORMANCE GRAPH

The graph below compares the cumulative total stockholder return on our common stock with the cumulative total return on the S&P 500 Index and the S&P Technology 500 (comprised of those companies in the technology sector of the S&P 500 Index). The graph assumes that \$100 was invested in our common stock on July 27, 1998, the effective date of our initial public offering, and in the S&P 500 Index and the S&P Technology 500, including reinvestment of dividends. Historic stock price performance is not necessarily indicative of future stock price performance.

TOTAL STOCKHOLDER RETURNS



OTHER MATTERS

As of the date hereof, the Board of Directors is not aware of any other matters to be submitted at the Annual Meeting. If any other matters properly come before the meeting, it is the intention of the persons named in the enclosed Proxy to vote the shares they represent as the Board of Directors recommends or as they otherwise deem advisable.

VOTING VIA THE INTERNET OR BY TELEPHONE

For Shares Directly Registered in the Name of the Stockholder

Stockholders with shares registered in their own names may vote those shares telephonically by calling 1-800-690-6903 (within the U.S. and Canada only, toll-free), or via the Internet at ADP Investor Communication Services' voting web site (www.proxyvote.com).

For Shares Registered in the Name of a Broker or a Bank

A number of brokers and banks are participating in a program provided through ADP Investor Communication Services that offers telephone and Internet voting options. If your shares are held in an account with a broker or a bank participating in the ADP Investor Communication Services program, you may vote those shares telephonically by calling the telephone number shown on the voting form received from your broker or bank, or via the Internet at ADP Investor Communication Services' voting web site (www.proxyvote.com).

General Information for All Shares Voted Via the Internet or By Telephone

Votes submitted via the Internet or by telephone must be received by 11:59 p.m., Eastern Time, on Thursday, May 16, 2002. Submitting your proxy via the Internet or by telephone will not affect your right to vote in person should you decide to attend the Annual Meeting. The telephone and Internet voting procedures are designed to authenticate stockholders' identities, to allow stockholders to give their voting instructions and to confirm that stockholders' instructions have been recorded properly. Stockholders voting via the Internet should understand that there may be costs associated with electronic access, such as usage charges from Internet access providers and telephone companies, that must be borne by the stockholder.

THE BOARD OF DIRECTORS

San Jose, California
April 15, 2002

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

For the Fiscal Year Ended December 31, 2001

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 Or 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____.

Commission file number: 000-29748

ECHELON CORPORATION

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation or organization)

77-0203595
(I.R.S. Employer
Identification Number)

**550 Meridian Avenue
San Jose, California 95126**
(Address of principal executive office and zip code)

(408) 938-5200
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act: **None**

Securities registered pursuant to Section 12(g) of the Act: **Common Stock \$0.01 par value**

Name of each exchange which registered: **NASDAQ National Market**

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and, (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K. ☒

The aggregate market value of common stock held by non-affiliates of the registrant as of February 28, 2002 was \$415,769,084 (based on the closing sales price of \$15.90 per share as reported for the NASDAQ Market System of the National Association of Securities Dealers Automated Quotation System on February 28, 2002). Shares of common stock held by each officer, director, and holder of 5% or more of the outstanding common stock has been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes. As of February 28, 2002, 39,128,458 shares of the registrant's Common Stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

- (1) Certain sections of the Registrant's proxy statement filed in connection with its annual meeting of stockholders, to be held on May 17, 2002, are incorporated by reference into Part III of this Form 10-K where indicated.
- (2) The table of exhibits filed appears on page 40.

FORWARD-LOOKING INFORMATION

This report contains forward-looking statements within the meaning of the U.S. federal securities laws that involve risks and uncertainties. Certain statements contained in this report are not purely historical including, without limitation, statements regarding our expectations, beliefs, intentions or strategies regarding the future that are forward-looking. These statements include those discussed in Item 1, Business, including "General," "Industry Background," "Our Solution," "Strategy," "Markets, Applications and Customers," "Products and Services" and "Product Development," in Item 2, "Properties," in Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, including "Critical Accounting Policies," "Results of Operations," "Liquidity and Capital Resources," "New Accounting Standards" and "Factors That May Affect Future Results of Operations," and elsewhere in this report. In this report, the words "anticipate," "believe," "expect," "intend," "future," "moving toward" and similar expressions also identify forward-looking statements. Our actual results could differ materially from those forward-looking statements contained in this report as a result of a number of factors including, but not limited to, those set forth in the section entitled "Factors That May Affect Future Results of Operations" and elsewhere in this report. All forward-looking statements and reasons why results may differ included in this report are made as of the date of this report, and we assume no obligation to update any such forward-looking statement or reason why such results might differ.

PART I

Item 1. BUSINESS

General

We develop, market and support products and services that allow everyday devices — such as light switches, washing machines, conveyor belts, thermostats, door locks, motion sensors, air conditioners, pumps, and valves — to be made “smart” and to communicate with one another and across the Internet. Our products and services are based on our LONWORKS® technology. Our LONWORKS technology is an open standard, meaning that many official standards-making bodies have published industry standards based on all or parts of our technology and that many of our technology patents are broadly licensed without royalties or license fees. Our products and services may be used across many industries to network together everyday devices in homes, utilities, buildings, factories, transportation, and other systems. Our products allow original equipment manufacturers (or “OEMs”), and systems integrators (who are specialty contractors that combine products from multiple suppliers into integrated systems), to design and put into service open, interoperable distributed control networks. A control network is a collection of everyday devices that communicate with one another to perform a control application — from heating, lighting, security, and elevators in buildings, to the brakes in freight trains, to the equipment in sewage treatment plants, to the lights in your home. In an interoperable system, products or subsystems from multiple vendors can be integrated into a unified system without the need to develop custom hardware or software.

Control systems manage key functions in virtually all types of facilities that affect our daily lives. These functions can be as simple as turning a light on and off and as complex as operating a chemical production line. Traditionally, most commercial control systems have used closed, centrally controlled architectures, which we believe are more costly to install, less reliable, and more difficult to customize than open control networks based on our technology. Open LONWORKS control networks are an alternative to the traditional approach of centralized or hard-wired control. Compared with traditional control systems, we believe that open control networks reduce life-cycle costs, are more flexible than centralized systems and permit control systems to be comprised of products and services from a variety of vendors. As a result, these open control networks can enable new applications while providing improved reliability, serviceability, and functionality.

Our LONWORKS control networking technology allows intelligence and communications capabilities to be embedded into individual control devices that may be connected together through a variety of communications media, such as a twisted pair of wires or data cable, the existing power lines in a facility, or any Internet protocol-based network, such as corporate intranets or the Internet. These intelligent, networked control devices are then able to communicate with each other to perform the desired control functions. In effect, the network itself becomes the controller, eliminating the need for central controllers, significantly reducing wiring costs and enhancing the functionality and flexibility of the control system. In addition, by connecting to the Internet, LONWORKS networks allow devices that were once isolated by their physical location to be reached from anywhere in the world. Important data that previously could not be obtained can now be integrated into enterprise-wide information systems to lower costs and increase revenues.

Our products and services provide the infrastructure and support required to build and implement multi-vendor, open, interoperable networks of everyday devices. Our wide-ranging product offerings include transceivers, concentrator products, control modules, routers, network interfaces, development tools, and software tools and toolkits. Our objective is to establish our LONWORKS technology and products as a leading solution for networking everyday devices for control applications.

We market our products and services to OEMs and systems integrators in the building, industrial, transportation, utility/home and other automation markets. We sell primarily through a direct sales force in North America and other countries where we have marketing and sales operations, and expand our direct sales efforts with distributors in Europe, Japan, South America and various Asia Pacific countries.

Representative customers include ENEL S.p.A., Honeywell, Schindler Elevator, TAC AB, Siemens, Invensys Intelligent Systems, Fuji Electric, Sifang, BOC Edwards, and NTT Data.

We generated our first-ever quarterly operating profit in the fourth quarter of 2001 in the amount of \$4.4 million. Our total revenues for 2001 grew to \$76.6 million from \$49.3 million in 2000, and \$39.8 million in 1999. Our largest customer, ENEL S.p.A., the largest electric utility in Italy, accounted for 40.5% of total revenues for 2001 and 3.1% of total revenues for 2000. Our second largest customer, EBV, the sole independent distributor of our products in Europe, accounted for 16.9% of total revenues for 2001, 26.5% of total revenues for 2000, and 27.3% of total revenues in 1999.

In the third quarter of 2000, we completed a transaction with ENEL whereby ENEL purchased for cash three million newly issued shares of our common stock for a purchase price of \$130.7 million. In the second quarter of 2000, we entered into a research and development agreement with an affiliate of ENEL, under which we will cooperate with ENEL to integrate our LONWORKS technology into ENEL's remote metering project in Italy. We began to ship products to ENEL for use in the project in late 2000. During 2001, we increased the volume of these shipments.

Industry Background

Control systems manage key functions in a variety of facilities. A common application of a control system is to allow a thermostat to communicate with other equipment in a building to automatically adjust temperature and airflow. In addition to interconnecting and monitoring heating, ventilation, and air conditioning, or HVAC, control systems are used in buildings to manage such functions as elevators, lighting, security and access control. In industrial facilities, these systems are used to automate semiconductor manufacturing equipment, oil pumping stations, waste water treatment plants, textile dyeing machinery and a myriad of other applications. In transportation systems, control systems are used to regulate such features as propulsion, braking and heating systems in trains, light rail cars, trucks, buses, and other vehicles. In electric utility systems, control networks may be used to provide services including remote meter reading, load shedding, and demand side management. In homes, control systems have seen limited use in high-end residences for lighting control, security, and other automation applications and in simple hobbyist-level automation systems.

Control systems consist of an array of hardware devices and software used to collect data from the physical world and convert that data to electrical signals. These signals, in turn, provide information that can be used to effect responses based upon pre-programmed rules and logic. Traditionally, most control systems have incorporated closed, centrally controlled architectures. These systems share many of the same drawbacks of centralized computing architectures that rely upon mainframes and minicomputers to communicate to "dumb" terminals that lack independent processing capabilities.

Products for control systems are typically designed and manufactured by OEMs who focus on one or more vertical markets, such as HVAC systems for buildings, or braking control systems for trains. Control systems are typically installed and maintained by systems integrators, and in some instances, by the in-house installation and maintenance divisions of OEMs. We believe that closed, centralized control systems have a number of inherent disadvantages for OEMs, systems integrators and end-users.

OEMs, as the designers of control systems, and in some instances, as developers of their own protocols, can incur significant development and ongoing support expense to implement and maintain their closed systems. In addition, supporting such a closed infrastructure can take valuable resources away from developing competitive applications and can limit the OEM's ability to support the product development efforts of third party companies that use open platforms. Finally, centralized systems also risk complete shutdown if the central controller fails.

For systems integrators, it is typically very costly and time-consuming to install closed, centralized control systems because of the physical task of installing large amounts of wire and conduit to connect each component to one or more central controllers. Once the physical infrastructure is installed, specially trained and highly skilled personnel must program, install and "debug" detailed control logic software into the controllers in order to manage the various components. If a facility incorporates control systems from more than one OEM, systems integrators may also have to spend considerable time connecting

systems that were not designed to operate together, such as HVAC and fire/life/safety systems. This complex process can also make it expensive and time consuming to modify the systems. End-users ultimately must pay for these products and services. However, because it can be so costly to install and modify closed, centrally controlled systems, end-users often cannot always acquire new applications at an affordable cost. We believe that these factors have reduced the market opportunity for both OEMs and systems integrators to sell new products, functions and applications to end-users.

OEMs, systems integrators and end-users are increasingly trying to overcome the limitations of closed, centralized control systems. Just like the computer industry's move away from centralized computing architectures, we believe that across a broad range of control applications, the controls industry is moving away from custom, wiring-intensive and closed interconnection schemes among various system components. We believe that the controls industry is moving towards open, interoperable, distributed architectures in which the control intelligence resides among the sensors and actuators in an intelligent network, rather than in central controllers.

Our Solution

We develop, market, and support a family of hardware and software products and services that allows OEMs and systems integrators to design and implement open, interoperable, distributed control networks. Our networking technology allows intelligence and communications capabilities to be embedded into individual control devices. These devices can be connected together through a variety of communications media such as a twisted pair of wires or data cable, the existing power lines in a facility or a home, or any Internet protocol-based network. The intelligent, networked control devices are then able to communicate with each other to perform the desired control functions. For example, a temperature sensor might detect a change in temperature and send a message over the network that is received and acted upon by other devices that have been configured to accept the message. This eliminates the need for central controllers, significantly reduces wiring costs, increases system reliability, enables the creation of systems that do more, and makes it easier to adapt the systems to the user requirements — both at the time of initial installation and over the life of the system as the end-users' needs change. In addition, we believe that our products and services create new market opportunities because they allow devices that were previously not part of control systems, such as home appliances, to be cost-effectively made smart *networked* devices that communicate with one another and across the Internet. Further, the information communicated between the control devices can be integrated into corporate data applications, such as *enterprise resource planning (ERP)* or *customer resource management (CRM)* systems to improve operational efficiency, lower cost, and increase quality.

We offer a broad set of products and services that provide the foundation and support required to build and implement open, interoperable networks of everyday devices using products from multiple vendors for the building, industrial, transportation, utility/home and other automation markets. Our products are based on our LONWORKS networking technology, an open, multi-industry standard for networking everyday devices. In a LONWORKS control network, everyday devices become smart and can communicate with one another and across the Internet using our LONWORKS protocol. Each device in the network contains embedded intelligence that implements the protocol and performs local sensing and control functions. At the core of this embedded intelligence is typically a Neuron® Chip, an integrated circuit that we initially designed. Neuron Chips are currently manufactured and sold by Toshiba and Cypress Semiconductor. In addition, we offer:

- transceivers that couple the Neuron Chip to the communications medium;
- concentrator products;
- "smart" transceivers that combine the functionality of a Neuron Chip and a transceiver into a single integrated circuit;
- control modules that are intended to help reduce OEM development cost;
- intelligent LONWORKS routers that allow users to build large systems containing different networking media;

- network interfaces that connect computers to the network;
- development tools that allow OEMs to design LONWORKS technology into their products;
- software tools and toolkits that allow users to install, monitor, maintain and control their systems; and
- hardware and software products that enable the everyday devices in a LONWORKS network to be connected to the Internet and other Internet protocol-based networks.

Based on our past experience in implementing our products, we believe that our family of products and services provides the following customer benefits:

- *Installation Cost Savings.* LONWORKS based open control networks are designed to be less expensive to install than closed, centrally controlled systems. By replacing individual hard-wired connections with shared network channels, we believe that wiring and conduit material and labor costs can be substantially reduced. By eliminating the need to program and debug complex control logic software, systems can be designed and commissioned more quickly by personnel with less specialized training. In addition, we have designed LONWORKS based networks so they do not require expensive, performance-limiting gateways, which are used to enable communication between various systems and to connect control systems from multiple vendors.
- *Life-Cycle Cost Savings.* LONWORKS networks can eliminate many of the sources of high life-cycle costs found in traditional control systems. By providing an open, interoperable platform, LONWORKS networks allow end-users to select the most cost-effective products and services for their applications from a broad range of OEMs. In addition, we believe that the inherent flexibility of the LONWORKS network architecture permits modifications to the control system to be made at significantly lower cost. These modifications include adding new products, features and functions. LONWORKS technology also allows devices to be logically "rewired" across the network without the need to run new physical wire or to replace or reprogram devices.
- *Improved Quality and Functionality.* With LONWORKS networks, end-users may customize their control networks by using products and applications from an array of vendors that best suits their specific needs. In open LONWORKS networks, any piece of information from any device can easily be shared with any other device in the same control system, in a different control system, or in a computer system, without the need for custom programming or additional hardware. For example, a measurement system can analyze information from a manufacturing system and send back improvements within seconds if the two systems communicate directly, rather than through a process where information is gathered and communicated manually over days or even weeks.
- *Improved Reliability.* In a traditional system that has one central controller, the entire system can fail if that controller fails. However, in a fully distributed LONWORKS control network, there is no single point of failure. Typically, the failure of a device on the network only affects a small subset of devices with which it interacts. Unlike devices in a centrally controlled system, devices in a LONWORKS network are "self-aware" and can take appropriate actions, such as returning to default set points, to adapt to the error condition. In addition, each device in a LONWORKS network has built-in processing power, which allows it to keep track of its own status and report problems before they occur.
- *Increased Market Opportunities.* We believe that by eliminating high-cost centralized controllers and fostering devices that can work together, LONWORKS technology allows both OEMs and systems integrators to create low-cost, customized solutions to satisfy market demands that have not been met by traditional control systems. We believe that new market opportunities are created by allowing devices that were previously not part of control systems, such as home appliances, to cost-effectively be made smart *networked* devices that communicate with one another and across the Internet. Further, we believe that the ability to integrate the information communicated between the control devices into corporate data applications, such as enterprise resource planning (ERP) or customer resource management (CRM) systems creates new opportunities to improve operational efficiency, lower cost, and increase quality.

Strategy

Our objective is to be the leading supplier of products and services used in the growing market for open, interoperable control networks. Key elements of our strategy include:

- *Extend Technological Leadership.* Our LONWORKS networking technology is the foundation for a low-cost, flexible, interoperable and reliable platform for implementing networked control applications. We intend to leverage our position as the developer of the LONWORKS technology, along with our expertise in networking software, distributed control systems and digital and analog circuit design, to deliver a full range of highly-functional and cost-effective products and systems that meet our customers' needs.
- *Target Industry-Leading OEM Customers.* We seek to develop broad industry support for our LONWORKS technology. To help accomplish this objective, we work closely with industry-leading OEMs, such as Bombardier, BOC Edwards and Honeywell, in the product design process and invest in programs that enable these customers to implement, market and support their products. We believe that close collaborative relationships with OEM customers will continue to accelerate the transition of our targeted industries toward open, multi-vendor architectures for control networks.
- *Strengthen Our Systems Integrator Distribution Channel.* We believe that end-users increasingly prefer multi-vendor control networks in order to decrease life-cycle costs and improve the functionality of their control systems. In order to capitalize on this opportunity, we complement our OEM distribution channel by aggressively targeting independent systems integrators as an additional source to install, configure and maintain highly-functional control networks for end-users. In 1997, to more effectively meet the needs of systems integrators, we announced the LonPoint® products, which enable system integrators to incorporate legacy input and output devices that do not contain built-in LONWORKS connectivity into a LONWORKS network. That same year, we introduced the Authorized Network Integrator channel program to train qualified integrators in the design, installation and maintenance of flat, open, interoperable multi-vendor LONWORKS control networks. In 2000, we expanded the Authorized Network Integrator program into the Open Systems Alliance, a program designed to bring together manufacturers, integrators, resellers, and other companies that are working to promote open systems based on the LONWORKS platform. We intend to continue promoting the benefits of the LONWORKS technology and products to systems integrators and end-users as a means to create stronger demand for our control network solutions.
- *Increase Penetration of Existing Vertical Markets.* While our control network products are applicable across a broad range of industries, we intend to continue to focus our marketing efforts on those vertical markets in which we have established a large customer base. These markets include the utility/home automation, building, and transportation industries. We work closely with OEMs and systems integrators in these markets to identify market needs, and target our product development efforts to meet those needs. For instance, in 1997, we began shipping our LNS™ network operating system in response to the needs of OEMs for a multi-user platform to install, maintain, monitor and interface with control networks. In addition, we established the LonMark® Interoperability Association in May 1994 to facilitate the development and implementation of the LONWORKS standard for control networks within various industries. Industry leaders in our targeted markets have announced and currently promote products that conform to this standard. Our agreements with ENEL are an example of an important success in penetrating a new vertical market, the utility industry.
- *Take Advantage of New Market Opportunities Created by the Integration of LONWORKS Control Networks with the Internet and Corporate Intranets.* We believe that the ability to interact with LONWORKS control networks through Internet Protocol networks, including the Internet and corporate intranets, delivers important features to our customers that create new markets for our products. This ability enables end-users to remotely monitor and manage control networks, to collect and analyze data generated by their control networks, and to deliver new value-added

services over the Internet that interact with the everyday devices in LONWORKS networks. To meet this market demand, we are developing systems and technology that combine standard data networking and communications protocols with our products and technology. In 1999, we joined the Cisco NetWorks program and announced our intent to build products that integrate LONWORKS control networks with IP networks. We began shipping the first product resulting from these efforts, the i.LON™ 1000 Internet Server, in the first quarter of 2000. In 2001, we previewed two new members of the i.LON product family, the i.LON Ethernet Adapter, and the i.LON 100 Internet Server. Pre-release units of both products are expected to be available in the first half of 2002. Additionally, in January 2002, we acquired privately held BeAtHome.com, Inc. of Fargo, North Dakota. BeAtHome offers an award winning, innovative, and intuitive software solution and value-added services platform for web-based monitoring and control applications to the home, commercial and utility markets.

- *Leverage International Market Opportunities.* With sales and marketing operations in ten countries and 78.1% of our total revenues in 2001 attributable to international sales, we have established a significant international presence. We plan to continue to devote significant resources to international sales, marketing and product development efforts to capitalize on markets for control networks outside of the United States. For example, our most popular power line transceiver was designed to meet the requirements imposed by regulators in North America, Europe and Japan, enabling OEMs to leverage their product development programs across these markets.

Working Capital

As of December 31, 2001, we had working capital, defined as current assets less current liabilities, of \$151.7 million, which was a decrease of about \$12.6 million compared to working capital of \$164.4 million as of December 31, 2000. This decrease was primarily attributable to increases in property and equipment and other long-term assets. Cash, cash equivalents and short-term investments decreased by \$39.1 million in 2001 from 2000 due to increases in accounts receivable, property and equipment, other long-term assets, other current assets, and inventories.

As of December 31, 2001, we had cash, cash equivalents and short-term investments of \$111.7 million. Cash used in operating activities in 2001 was primarily due to increases in accounts receivable and inventories related to the ENEL program, as well as an increase in other current assets, partially offset by an increase in accounts payable.

Markets, Applications and Customers

We market our products and services primarily in Europe, Japan and selected Asia Pacific countries, and North and South America. Our target markets include:

- *Building Automation.* Companies worldwide are using LONWORKS control networks in most areas of the building automation industry, including access control, automatic doors, elevators, energy management, fire/life/safety, HVAC, lighting, metering, security and window blinds. We believe that LONWORKS networks are widely accepted because they lower installed system cost, reduce ongoing life-cycle costs and increase functionality. For example, the Coeur Défense project in the la Défense quarter of Paris included a major automation system using LONWORKS networks for lighting, heating, air-conditioning, and sun blind control. Our OEM customers in the building automation market include Honeywell, TAC AB, Invensys Intelligent Systems, Johnson Controls, Siemens, Yamatake, Philips Lighting, and Schindler Elevator.
- *Industrial Automation.* LONWORKS control networks are found in semiconductor fabrication plants, gas compressor stations, gasoline tank farms, oil pumping stations, water pumping stations, textile dyeing machinery, pulp and paper processing equipment, automated conveyor systems and many other industrial environments. In such industrial installations, LONWORKS networks can replace complex wiring harnesses, reduce installation costs, eliminate expensive programmable logic controllers and distribute control among sensors, actuators and other devices, thereby

reducing system costs, improving control and eliminating the problem of a single point of failure, among other things. For example, BOC Edwards, a leading supplier of vacuum pumping systems to the semiconductor industry, uses LONWORKS control networks within certain vacuum pump products to replace complex wiring used to connect various motors, sensors, actuators and displays. The same control network is extended to connect up to 400 pumping stations together in a semiconductor fabrication plant to form a complete pumping system. Our OEM customers in the industrial automation market include BOC Edwards, Fuji Electric, Hitachi, Meissner & Wurst, and Yokagawa.

- *Transportation.* Our technology is used in important transportation applications, including railcars, light rail, busses, motor coaches, fire trucks, naval vessels and aircraft. LONWORKS networks can be used in these transportation systems to improve efficiency, reduce maintenance costs and increase safety and comfort. LONWORKS technology is one of the standards used by the New York City Transit Authority for the replacement of its subway cars. Key OEMs in the transportation market include Bombardier, Kawasaki, Siemens, and New York Air Brake.
- *Utility/Home Automation and Other.* While the utility/home networking market for automation and control is still in its infancy, many companies are now selling LONWORKS based products for HVAC, lighting, security, utility meters and whole house automation. In May 2000, ENEL, the Italian utility company, announced it would incorporate LONWORKS technology into its digital meter project, Contatore Elettronico. Under this project, ENEL intends to provide digital electricity meters and a complete home networking infrastructure to over 27 million Italian households over a three-year period. We began shipping products to ENEL for use in the project in late 2000, and increased those volumes during 2001. Other industries in which LONWORKS control networks have been utilized or are being developed for use include telecommunications (including alarm systems for switching equipment) and agriculture (including feeding and watering systems).

Products and Services

We offer a wide-ranging set of over 90 products and services marketed under the LONWORKS brand name. These products and services provide the infrastructure and support required to implement and deploy open, interoperable, control network solutions. All of our products either incorporate or operate with the Neuron Chip and/or the LONWORKS protocol. While we recommend broad use of several of our products with other products that we offer, there is no inherent requirement for a customer to do so, given our open networking technology. For instance, a customer's product could use a transceiver purchased from a third party that is installed with software that uses our network operating system. Similarly, a customer's product could use a transceiver purchased from us that is installed with software from a third-party.

LONWORKS Control and Connectivity Products. This suite of hardware products, some with embedded firmware, serves as the physical interface between the control software that resides on the managed devices and the cabling and wiring infrastructure. These products include a variety of transceivers, control modules, data concentrators, routers, network interface devices, and IP connectivity products. Standard, off-the-shelf LONWORKS transceivers and control modules simplify the development of LONWORKS nodes, provide the foundation for interoperability and reduce the development cost and time for an OEM's product development. Data concentrators provide wide area connectivity to and supervision of a set of devices, such as electricity meters. LONWORKS routers provide transparent support for multiple media, which makes it possible to signal between different types of media, such as twisted pair, power line, radio frequency, optical fiber and infrared. Routers can also be used to control network traffic and partition sections of the network from traffic in another area, increasing the total throughput and speed of the network. Network interfaces can be used to connect computers to a LONWORKS network. Our iLON 1000 Internet Server, which began shipping in March 2000, provides reliable, secure Internet access to the everyday devices in LONWORKS networks. Our FTT-10A transceiver product, which permits communication over a twisted pair of wires, generated approximately 19.3% of our revenues during 2001 and 28.7% of our revenues during 2000. We released the FTT-10A in May 1997.

LNS. Our LNS network operating system serves as the platform for installing, maintaining, monitoring and interfacing with control networks. The LNS family of products adds the power of client-server architecture and component-based software design into control systems and allows tools from multiple vendors to work together. The most recent release of LNS is version 3.0, which we began shipping in September 2000.

The LonMaker™ Integration Tool, built on the LNS network operating system and the Microsoft Visio technical drawing package, gives users a familiar, CAD-like environment in which to design their network's control system. The graphical nature of the LonMaker tool provides an intuitive interface for designing, installing and maintaining multi-vendor, open, interoperable LONWORKS control networks. LNS also allows multiple users, each running their own copy of the LonMaker tool or other LNS based tools, to utilize the system in parallel, thereby streamlining the design and commissioning process, and facilitating future adds, moves and changes. We first shipped the LonMaker tool release 1.0 in June 1998. Our current version, release 3.1, began shipping in October 2001.

LonPoint Products. Our LonPoint products provide infrastructure for open, interoperable, distributed control networks. LonPoint products include the following:

- interface modules which convert a variety of legacy digital and analog sensors and actuators into intelligent and interoperable LONWORKS devices;
- routers which provide transparent connectivity and intelligent message passing between various combinations of standard LONWORKS media; and
- scheduler and data logging modules, which provide system timekeeping, state coordination, and distributed data storage.

LonPoint products are installed using the LonMaker for Windows tool and include LNS software plug-ins that provide end-users with a customized configuration view of each LonPoint module, thereby reducing the time and training required to configure LonPoint interface modules.

Development Tools. We provide development tools that are used by an OEM to design LONWORKS technology into the OEM's products. The LonBuilder® Developer's Workbench integrates a complete set of tools for developing LONWORKS based control networks. These tools include an environment for developing and debugging applications at multiple nodes, a network manager to install and configure these nodes, and a protocol analyzer to examine network traffic to ensure adequate capacity and to debug errors. Our most recent release of this product is version 3.01, which we first shipped in July 1996.

The NodeBuilder® development tool is designed to make it easy for OEMs to develop and test individual LONWORKS nodes. NodeBuilder uses a familiar Windows based development environment with easy-to-use on line help. The NodeBuilder tool can complement the development capabilities of the LonBuilder Developer's Workbench, since the NodeBuilder tool can be used to develop individual nodes that are then integrated and tested as a system using the LonBuilder tool. Our most recent release of the NodeBuilder development tool is version 3.0, which we first shipped in December 2001.

Training and Support. We conduct a variety of technical training courses covering our LONWORKS network technology and products. These courses are designed to provide hands-on, in-depth and practical experience that can be used immediately by OEMs and systems integrators using LONWORKS systems. In addition to conducting these classes ourselves, we license them to third-parties in foreign markets who present them in the local language. We also offer technical support to our customers on a per-incident and annual contract basis. We provide these support services to resolve customers' technical problems on a timely basis, ensure that our products will be used properly and to shorten the time required for our customers to develop products that use our technology. As of February 28, 2002, we had 14 employees in the United States, Japan, China and the United Kingdom engaged in training and support.

Our product revenues for 2001 grew to \$74.8 million from \$47.3 million in 2000, and \$37.5 million in 1999.

Sales and Marketing

We market and sell our products and services to OEMs and systems integrators to promote the widespread use of our LONWORKS technology. In addition, we believe that awareness of the benefits of LONWORKS networks among end-users will increase demand "pull" for our products.

In North America, we sell our products through a direct sales organization. Outside the United States, direct sales, applications engineering and customer support are conducted through our offices in China, France, Germany, Italy, Japan, the Netherlands, South Korea, and the United Kingdom. Each of these offices is staffed primarily with local employees. We support our worldwide sales personnel with application engineers and technical and industry experts working in our headquarters. We also leverage our selling efforts through the use of an in-house telephone sales staff. Internationally, we support our direct sales with the use of distributors who tend to specialize in certain geographical markets. We sell our products in Europe principally through EBV, our sole independent European distributor, and through our direct sales force. We rely solely on distributors in certain markets in the Asia Pacific region, including Australia and Taiwan, and in Latin America, through our distributor in Argentina. International sales, which include both export sales and sales by international subsidiaries, accounted for 78.1% of our total revenues for 2001, 66.4% of our total revenues for 2000, and 62.4% of our total revenues for 1999.

In 1997, we began an authorized network integrator program to increase the distribution of our products through systems integrators worldwide. These systems integrators design, install, and service control systems using our LonMaker tool, our LonPoint products, and other manufacturers' products that meet the certification guidelines of the LonMark Interoperability Association, thereby reducing dependence on single-vendor products, eliminating the risks of centralized, closed controllers and supporting less complex, peer-to-peer system architectures. We provide these systems integrators with the training, tools, and products required to cost-effectively install, commission, and maintain open, multi-vendor distributed control systems based on LONWORKS control networks.

The LonMark Interoperability Association and the LonWorld™ Conference and Exhibition assist our marketing efforts. We formed the LonMark Interoperability Association in May 1994 and as of February 28, 2002 it had about 300 members. This Association makes technical recommendations for interoperable use of LONWORKS technology and promotes the use of open control networks based on the LONWORKS standard. The purpose of the LonWorld Conference and Exhibition is to provide a forum in which parties can share recent information concerning LONWORKS technology and applications, build alliances, and support the LONWORKS standard for control networking. In 2001, the LonWorld Conference and Exhibition was organized by Messe Frankfurt, the first time that an organization other than Echelon had financial responsibility for the event. The LonWorld conference was held in Frankfurt, Germany, and Messe Frankfurt reported that over 1,400 people attended the two-day conference, making it the largest LonWorld event held to date. In December 2001, we announced that we had agreed to key terms for extending Messe Frankfurt's stewardship of the LonWorld Tradeshow and Conference to events held in the North American market.

Strategic Alliances

Neuron Chips, which are important components used by our customers in control network nodes, are currently manufactured and distributed by Toshiba and Cypress Semiconductor. Motorola also manufactured and distributed Neuron Chips until January 31, 2001. We presently have licensing agreements with each of Cypress Semiconductor and Toshiba. Among other things, the agreements grant Cypress and Toshiba the worldwide right to manufacture and distribute Neuron Chips using technology licensed from us and require us to provide support and unspecified updates to the licensed technology over the terms of the agreements. The Cypress agreement expires in April 2009 and the Toshiba agreement expires in January 2010. While we developed the first version of the Neuron Chip; Motorola, Toshiba, and Cypress have subsequently developed improved, lower-cost versions of the Neuron Chip that are presently utilized in products developed and sold by us and our customers.

Product Development

Our future success depends in large part on our ability to enhance existing products, reduce product cost and develop new products that maintain technological competitiveness. We have made and intend to

continue to make substantial investments in product development. We continue to make significant engineering investments in bringing our LNS network operating system, control and connectivity products and development tools to market. Extensive product development input is obtained from customers and by monitoring end-user needs and changes in the marketplace.

Our total expenses for product development were \$17.0 million for 2001, \$11.2 million for 2000 and \$9.2 million for 1999. We anticipate that we will continue to commit substantial resources to product development in the future and that product development expenses may increase in the future. To date, we have not recorded any capitalized software development costs from our development efforts. As of February 28, 2002, we had 106 employees in our product development organization.

Competition

Competition in our markets is intense and involves rapidly changing technologies, evolving industry standards, frequent new product introductions and rapid changes in customer requirements. To maintain and improve our competitive position, we must continue to develop and introduce, on a timely and cost-effective basis, new products, features and services that keep pace with the evolving needs of our customers. The principal competitive factors that affect the markets for our control network products are the following:

- our customer service and support;
- our product reputation, quality and performance; and
- the price and features of our products such as adaptability, scalability, the ability to integrate with other products, functionality, and ease of use.

In each of our markets, we compete with a wide array of manufacturers, vendors, strategic alliances, systems developers and other businesses. Our competitors include some of the largest companies in the electronics industry, such as Siemens in the building and industrial automation industries, Allen-Bradley (a subsidiary of Rockwell) and Group Schneider in the industrial automation industry, and Microsoft. Many of our competitors, alone or together with their trade associations and partners, have significantly greater financial, technical, marketing, service and other resources, significantly greater name recognition and broader product offerings. As a result, these competitors may be able to devote greater resources to the development, marketing and sale of their products, and may be able to respond more quickly to changes in customer requirements or product technology. In addition, those competitors that manufacture and promote closed, proprietary control systems may enjoy a captive customer base dependent on such competitors for service, maintenance, upgrades and enhancements. Most recently, Microsoft has announced a specification that it refers to as SCP (Simple Control Protocol) that is targeted at the networking of everyday devices. Microsoft has announced its intent to focus this capability on home networking applications. Products from other companies such as emWare, Ipsil, JumpTec, Lantronix, NetSilicon and Wind River Systems could also compete with our products, especially in the utility/home market.

Many of our current and prospective competitors are dedicated to promoting closed or proprietary systems, technologies, software and network protocols or product standards that differ from, or are incompatible with ours. In some cases, companies have established associations or cooperative relationships to enhance the competitiveness and popularity of their products, or to promote these different or incompatible technologies, protocols and standards. For example, in the building automation market, we face widespread reluctance by vendors of traditional closed or proprietary control systems, who enjoy a captive market for servicing and replacing equipment, to use our interoperable technologies. We also face strong competition by large trade associations that promote alternative technologies and standards in their native countries, such as the BatiBus Club International in France, the Konnex Association in Belgium, and the European Installation Bus Association in Germany, each of which has over 100 members and licensees. Other examples include the CEBus Industry Council, which is the proponent of an alternative protocol to our LONWORKS protocol for use in the utility/home automation industry, various industry groups who promote alternative open standards such as BACnet in the building market, and a group comprised of Asea Brown Boveri, ADtranz AB, Siemens, GEC Alstrom and other

manufacturers that support an alternative rail transportation protocol to our LONWORKS protocol. Our technologies, protocols or standards may not be successful in any of our markets, and we may not be able to compete with new or enhanced products or standards introduced by existing or future competitors.

LONWORKS technology is open, meaning that many of our technology patents are broadly licensed without royalties or license fees. As a result, our customers are capable of developing hardware and software solutions that compete with some of our products. Because some of our customers are OEMs that develop and market their own control systems, these customers in particular could develop competing products based on our open technology. For instance, all of the network management commands required to develop software that competes with our LNS software are published. This could decrease the market for our products and increase the competition that we face.

Manufacturing

Our manufacturing strategy is to outsource production to third parties where it is more cost-effective and to limit our internal manufacturing to such tasks as quality inspection, system integration, testing and order fulfillment. We maintain manufacturing agreements with Cypress and Toshiba, and until January 31, 2001 with Motorola, related to the Neuron Chip. Additionally, for most of our products requiring assembly, we use contract electronic manufacturers including WKK Technology, Able Electronics, and TYCO TEPC/Transpower. These contract electronic manufacturers procure material and assemble, test and inspect the final products to our specifications.

Government Regulation

Many of our products and the industries in which they are used are subject to U.S. and foreign regulation. Government regulatory action could greatly reduce the market for our products. Some of our competitors have attempted to use regulatory actions to reduce the market opportunity for our products or to increase the market opportunity for our competitors' products. We have resisted these efforts and will continue to oppose competitors' efforts to use regulation to impede competition in the markets for our products.

Proprietary Rights

We are the owner of numerous patents, trademarks and logos. As of February 28, 2002, we had received 80 United States patents, and had 14 patent applications pending. Some of these patents have also been granted in selected foreign countries. Many of the specific patents that are fundamental to LONWORKS technology have been licensed to our customers with no license fee or royalties. The principal value of the remaining patents relates to our specific implementation of our products and designs.

We hold several registered trademarks in the United States, including Echelon, LonBuilder, LonMark, LonTalk, LONWORKS, Neuron, and NodeBuilder. We have also registered some of our trademarks and logos in foreign countries.

Employees

As of February 28, 2002, we had 250 employees worldwide, of which 106 were in product development, 26 were in operations, 66 were in sales and marketing, 14 were in customer support and training and 38 were in general and administrative. About 164 employees are located at our headquarters in California. We have employees in nine countries worldwide, with the largest concentrations outside the United States in Germany, Japan, the United Kingdom, and the Netherlands. None of our employees is represented by a labor union. We have not experienced any work stoppages and consider our relations with employees to be good.

Executive Officers of the Registrant

M. Kenneth Oshman has been our Chairman and Chief Executive Officer since December 1988 (age 61). He also served as our President from 1988 to 2001. Mr. Oshman, with three associates, founded

ROLM Corporation, a telecommunications equipment company, in 1969. He was Chief Executive Officer, President, and a director at ROLM from its founding until its merger with IBM in 1984. Following the merger, he became a Vice President of IBM and a member of the Corporate Management Board. He remained in that position until he left IBM in 1986. Prior to founding ROLM, Mr. Oshman was a member of the technical staff at Sylvania Electric Products from 1963 to 1969. In addition to his responsibilities at our company, Mr. Oshman serves as a director of Sun Microsystems and Knight-Ridder. Mr. Oshman earned B.A. and B.S.E.E. degrees from Rice University and M.S. and Ph.D. degrees in Electrical Engineering at Stanford University.

Beatrice Yormark has been our President and Chief Operating Officer since September 2001 (age 57). She served as our Vice President of Marketing and Sales from January 1990 to August 2001. Ms. Yormark joined our company from Connect, Inc., an on-line information services company, where she was the Chief Operating Officer. Before joining Connect, Ms. Yormark held a variety of positions, including Executive Director of Systems Engineering for Telaction Corporation, Director in the role of Partner at Coopers & Lybrand, Vice President of Sales at INTERACTIVE Systems Corporation, and various staff positions at the Rand Corporation. Ms. Yormark received a B.S. degree in Mathematics from City College of New York and an M.S. degree in Computer Science from Purdue University.

Oliver R. Stanfield has been our Executive Vice President & Chief Financial Officer since September 2001 (age 53). He served as our Vice President and Chief Financial Officer from March 1989 to August 2001. Mr. Stanfield joined our company from ROLM, where he served in several positions since 1980, including Director of Pricing; Vice President, Plans and Controls; Vice President, Business Planning; Vice President, Financial Planning and Analysis; Treasurer; and Controller, Mil Spec Division. Prior to joining ROLM, Mr. Stanfield worked for ITEL Corporation, Computer Automation and Rockwell International. Mr. Stanfield began his business career with Ford Motor Company in 1969 in various accounting positions while completing a B.S. in Business Administration and an M.B.A. degree from the University of Southern California.

Frederik Bruggink has been our Senior Vice President of Sales and Marketing since September 2001 (age 46). He served as our Vice President, Europe, Middle East and Africa, from April 1996 to August 2001. Mr. Bruggink joined our company in 1996 from Banyan Systems, where he was Vice President, Europe. From 1985 to 1993, Mr. Bruggink held several positions at Stratus Computer, including General Manager for Holland, Benelux, and Northern Europe. His last position at Stratus was Vice President, Northern Europe (including Germany). Prior to joining Stratus, he held sales positions at Burroughs Computers. Mr. Bruggink attended the University of Leiden.

Russell Harris joined us in September 2001 as our Senior Vice President of Operations (age 40). Prior to joining our company, he served as the Vice President of Operations for NetDynamics from 1996 until its acquisition by Sun Microsystems in 1998. From 1991 to 1996, Mr. Harris was the Director of Operations at Silicon Graphics, Inc. From 1985 through 1991, he held various positions at Convergent Technologies and Unisys Corporation. His last position at Unisys was as Director of IT for Worldwide Operations. Mr. Harris earned B.S. and M.S. degrees in Industrial Engineering from Stanford University.

Peter A. Mehring has been our Senior Vice President, Engineering since September 2001 (age 40). He served as our Vice President, Engineering from March 1998 to August 2001. From January 1996 to March 1998, Mr. Mehring held a variety of positions at Umax Computer Corporation where he was a Founder, General Manager, and Vice President of Research and Development. Prior to joining Umax, Mr. Mehring held engineering management positions at Radius, Power Computing Corporation, Sun Microsystems, and Wang Laboratories. Mr. Mehring received a B.S. degree in Electrical Engineering from Tufts University, Massachusetts.

Item 2. PROPERTIES

During the first ten months of 2001, we leased a building totaling approximately 60,000 square feet of office space in Sunnyvale, California. In October 2001, we moved our headquarters to a new 75,000 square foot facility in San Jose, California. The aggregate rental expense under these two leases was about \$1.6 million during 2001. We also lease office space for some of our sales and marketing employees in

China, France, Germany, Italy, Japan, the Netherlands, South Korea and the United Kingdom and for some of our research and development employees in Livermore, California and Germany. The aggregate rental expense for such office space was about \$396,000 during 2001.

Our new corporate headquarters building is located in San Jose, California. The lease for this building requires minimum rental payments for ten years that total approximately \$20.6 million, as well as a \$3.0 million security deposit that we satisfied in the form of a standby letter of credit ("LOC") issued in July 2000. We currently secure this annually renewable LOC with a cash deposit at the bank that issued the LOC.

Construction on a second building, to be located next to the main headquarters building, has commenced, with an estimated completion date of July 2003. The lease for the second building also requires minimum rental payments for ten years that total approximately \$23.4 million. Payments under this lease will not commence until the building is completed. Additionally, we are required under the lease for the second building to provide a \$5.0 million security deposit that we satisfied in the form of a standby letter of credit issued in October 2001. We currently secure this annually renewable LOC with a cash deposit at the bank that issued the LOC.

Item 3. LEGAL PROCEEDINGS

NONE.

Item 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

No matters were submitted to a vote of security holders during the fourth quarter of our fiscal year ended December 31, 2001.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Our common stock is traded on the Nasdaq National Market under the symbol "ELON." We began trading on Nasdaq on July 28, 1998, the date of our initial public offering. The following table sets forth, for the quarter indicated, the high and low sales price per share of our common stock as reported on the Nasdaq National Market.

	Price Range	
	High	Low
Year Ended December 31, 2001		
Fourth quarter	\$ 18.50	\$11.26
Third quarter	30.13	11.26
Second quarter	32.00	8.00
First quarter	25.88	13.00
	<u>High</u>	<u>Low</u>
Year Ended December 31, 2000		
Fourth quarter	\$ 39.25	\$14.75
Third quarter	62.31	29.00
Second quarter	77.56	21.38
First quarter	113.00	15.63

As of February 28, 2002, there were about 520 stockholders of record. Because many shares are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these record holders.

Dividend Policy

We have never paid dividends on our capital stock and do not expect to pay any dividends in the foreseeable future. We intend to retain future earnings, if any, for use in our business.

ITEM 6. SELECTED FINANCIAL DATA

The following selected consolidated financial data has been derived from the audited consolidated financial statements. The information set forth below is not necessarily indicative of results of future operations, and should be read in conjunction with Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and notes in Item 8 of this Form 10-K in order to fully understand factors that may affect the comparability of the information presented below.

information presented below.

	Year Ended December 31,				
	2001	2000	1999	1998	1997
	(in thousands, except per share data)				
Consolidated Statement of Operations Data:					
Revenues:					
Product	\$ 74,777	\$ 47,261	\$37,546	\$29,163	\$24,665
Service	1,812	2,038	2,220	3,038	3,637
Total revenues	76,589	49,299	39,766	32,201	28,302
Cost of revenues:					
Cost of product	34,842	18,225	14,297	12,784	11,761
Cost of service	2,347	2,017	1,529	1,836	1,810
Total cost of revenues	37,189	20,242	15,826	14,620	13,571
Gross profit	39,400	29,057	23,940	17,581	14,731
Operating expenses:					
Product development	17,028	11,159	9,214	7,564	7,121
Sales and marketing	15,787	15,949	15,152	12,535	12,128
General and administrative	6,942	5,787	4,101	4,119	4,004
Non-recurring charge/(benefit)	—	(48)	549	—	—
Total operating expenses	39,757	32,847	29,016	24,218	23,253
Loss from operations	(357)	(3,790)	(5,076)	(6,637)	(8,522)
Interest and other income, net	6,655	4,019	1,355	945	497
Income/(loss) before provision for income taxes	6,298	229	(3,721)	(5,692)	(8,025)
Provision for income taxes	252	145	186	159	189
Net income/(loss)	\$ 6,046	\$ 84	\$ (3,907)	\$ (5,851)	\$ (8,214)
Income/(loss) per share (1):					
Basic	\$ 0.16	\$ 0.00	\$ (0.12)	\$ (0.24)	\$ (0.44)
Diluted	\$ 0.15	\$ 0.00	\$ (0.12)	\$ (0.24)	\$ (0.44)
Pro forma basic				\$ (0.20)	\$ (0.32)
Shares used in per share calculation (1):					
Basic	38,443	35,222	32,910	24,845	18,603
Diluted	41,141	39,734	32,910	24,845	18,603
Pro forma basic				29,405	25,756
Consolidated Balance Sheet Data:					
Cash, cash equivalents and short-term investments					
	\$111,653	\$150,793	\$24,304	\$29,053	\$ 7,853
Working capital	151,748	164,377	30,290	33,733	8,883
Total assets	185,654	175,676	39,711	41,950	16,816
Total stockholders' equity	174,717	168,761	32,938	35,786	8,800

- (1) See Note 2 of Notes to Consolidated Financial Statements for an explanation of shares used in computing basic net income/(loss) per share, diluted net income/(loss) per share, and pro forma basic net loss per share.

Selected Quarterly Results of Operations

The following tables set forth certain consolidated statement of operations data for each of the quarters in 2001 and 2000, as well as the percentage of our net revenues represented by each item. This information has been derived from our quarterly unaudited consolidated financial statements. The quarterly unaudited consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements included in this report and include all adjustments, consisting only of normal recurring adjustments, that we consider necessary for a fair presentation of such information when read in conjunction with our annual audited consolidated financial statements and notes appearing elsewhere in this report. The operating results for any quarter do not necessarily indicate the results for any subsequent period or for the entire fiscal year.

	Quarter Ended							
	Q401	Q301	Q201	Q101	Q400	Q300	Q200	Q100
	(in thousands, except per share data)							
Consolidated Statement of Operations Data:								
Net revenues:								
Product	\$31,763	\$17,655	\$13,247	\$12,112	\$12,483	\$11,738	\$12,100	\$10,940
Service	338	328	670	476	493	491	551	503
Total net revenues	32,101	17,983	13,917	12,588	12,976	12,229	12,651	11,443
Cost of revenues:								
Cost of product	16,292	8,697	5,600	4,253	5,137	4,433	4,371	4,284
Cost of service	606	518	686	537	565	422	548	482
Total cost of revenues	16,898	9,215	6,286	4,790	5,702	4,855	4,919	4,766
Gross profit	15,203	8,768	7,631	7,798	7,274	7,374	7,732	6,677
Operating expenses:								
Product development	4,820	4,320	4,064	3,824	3,018	2,866	2,912	2,363
Sales and marketing	4,316	3,732	3,848	3,891	3,901	3,808	4,162	4,078
General and administrative ...	1,703	1,438	1,487	2,314	1,750	1,360	1,508	1,169
Non-recurring charge/(benefit)	—	—	—	—	—	—	(48)	—
Total operating expenses ...	10,839	9,490	9,399	10,029	8,669	8,034	8,534	7,610
Income/(loss) from operations	4,364	(722)	(1,768)	(2,231)	(1,395)	(660)	(802)	(933)
Interest and other income, net	1,083	1,511	1,807	2,254	2,541	826	330	322
Income/(loss) before provision for income taxes .	5,447	789	39	23	1,146	166	(472)	(611)
Provision for income taxes	218	32	1	1	31	38	36	40
Net income/(loss)	\$ 5,229	\$ 757	\$ 38	\$ 22	\$ 1,115	\$ 128	\$ (508)	\$ (651)
Income/(loss) per share:								
Basic	\$ 0.14	\$ 0.02	\$ 0.00	\$ 0.00	\$ 0.03	\$ 0.00	\$ (0.01)	\$ (0.02)
Diluted	\$ 0.13	\$ 0.02	\$ 0.00	\$ 0.00	\$ 0.03	\$ 0.00	\$ (0.01)	\$ (0.02)
Shares used in per share calculation:								
Basic	38,502	38,648	38,482	38,053	37,814	35,284	34,507	33,651
Diluted	40,612	41,526	41,458	40,916	41,197	39,483	34,507	33,651

	Quarter Ended							
	Q401	Q301	Q201	Q101	Q400	Q300	Q200	Q100
	(in thousands, except per share data)							
Net revenues:								
Product	98.9%	98.2%	95.2%	96.2%	96.2%	96.0%	95.6%	95.6%
Service	1.1	1.8	4.8	3.8	3.8	4.0	4.4	4.4
Total net revenues	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cost of revenues:								
Cost of product	50.8	48.4	40.2	33.8	39.6	36.2	34.6	37.4
Cost of service	1.9	2.9	4.9	4.3	4.3	3.5	4.3	4.2
Total cost of revenues	52.6	51.2	45.2	38.1	43.9	39.7	38.9	41.6
Gross profit	47.4	48.8	54.8	61.9	56.1	60.3	61.1	58.4
Operating expenses:								
Product development	15.0	24.0	29.2	30.4	23.3	23.4	23.0	20.7
Sales and marketing	13.4	20.8	27.6	30.9	30.1	31.2	32.9	35.6
General and administrative...	5.3	8.0	10.7	18.4	13.5	11.1	11.9	10.2
Non-recurring charge/(benefit)	—	—	—	—	—	—	(0.4)	—
Total operating expenses	33.8	52.8	67.5	79.7	66.9	65.7	67.4	66.5
Income/(loss) from operations	13.6	(4.0)	(12.7)	(17.7)	(10.8)	(5.4)	(6.3)	(8.1)
Interest and other income, net	3.4	8.4	13.0	17.9	19.6	6.7	2.6	2.8
Income/(loss) before provision for income taxes ..	17.0	4.4	0.3	0.2	8.8	1.3	(3.7)	(5.3)
Provision for income taxes	0.7	0.2	0.0	0.0	0.2	0.3	0.3	0.4
Net income/(loss)	16.3%	4.2%	0.3%	0.2%	8.6%	1.0%	(4.0)%	(5.7)%

Net Revenues. During 2001, net revenues increased sequentially in each quarter primarily due to increasing shipments of product under the ENEL program. Without the inclusion of ENEL program revenues, net revenues decreased sequentially in each quarter of 2001, primarily due to worsening economic conditions around the world, and to a lesser extent, the impact of exchange rates, principally the Japanese Yen, on sales made in foreign currencies. In 2000, net revenues increased sequentially in each quarter with the exception of the third quarter. In general, in any given year, revenues for non-ENEL related products and services tend to be flat or lower in the third quarter than the preceding quarter due to the seasonal nature of some of our international markets. With the exception of the third quarter, quarterly increases in net revenues in 2000 were due to growth in the volume of sales from existing customers, the addition of new customers, initial low volume shipments of product under the ENEL program in the fourth quarter, and the introduction of new products such as the iLON 1000 Internet Server in the first quarter.

Gross Profit. Our gross profit decreased as a percentage of net revenues in 2001 compared to 2000 due primarily to increasing product shipments under the ENEL program. To a lesser extent, movement of margin between quarters within the two years is also due to product mix changes. The reduction of gross profit as a percentage of revenue in the fourth quarter of 2000 as compared to the third quarter of 2000 was primarily due to the first volume shipment of hardware product to ENEL. Conversely, the increase in gross profit as a percentage of revenue in the first quarter of 2001 as compared to the fourth quarter of 2000 was due to decreased ENEL shipments. Volume shipments to ENEL resumed in the second quarter of 2001 and contributed to the lower gross profit percentages in the second, third, and fourth quarters of 2001.

Product development. Product development expenses tend to fluctuate from quarter to quarter due primarily to the hiring of new personnel and the use of consultants who support our development efforts. The primary reason for the increase in product development expenses in the first quarter of 2001 as compared to the fourth quarter of 2000 was the inclusion of operating expenses for ARIGO Software GmbH, which we acquired in February 2001. Included in these operating expenses were charges associated with goodwill and other intangible amortization. During the second quarter of 2001, development expenses continued to increase due to a full quarter of ARIGO activity, as well as the hiring of additional personnel and increased use of consultants to support our development efforts. Quarterly increases in development spending continued in 2001 as additional development personnel were hired. During 2000, the primary reason for the general overall increase was related to the hiring of additional development personnel.

Sales and marketing. Sales and marketing expenses tend to fluctuate on a quarterly basis given the timing of various marketing programs and the timing of commissions, which are earned by our salespeople as products and services are sold to our customers. Quarterly fluctuations in exchange rates as compared to the U.S. dollar also impact sales and marketing expenses in the various international locations where we have sales and marketing operations. Increased sales and marketing expenses in the fourth quarter of 2001 as compared to the third quarter relate primarily to costs associated with our LonWorld tradeshow, which was held in October 2001, as well as costs associated with our new corporate headquarters in San Jose, including costs to relocate from our previous facility in Sunnyvale, California.

General and administrative. General and administrative expenses may vary between quarters primarily due to the timing of certain legal and travel expenses. The increase in general and administrative expenses in the fourth quarter of 2001 as compared to the third quarter was primarily the result of additional payroll expenses associated with modifications made to our management structure. In addition, costs associated with our new corporate headquarters facility in San Jose, including costs to relocate from our previous facility in Sunnyvale, also contributed to increased fourth quarter spending. During the first quarter of 2001, general and administrative costs increased primarily due to the payment of a \$475,000 settlement charge related to the Calabrese patent infringement lawsuit and related legal fees. The larger than usual increase in the fourth quarter of 2000 was again, primarily the result of increased legal costs associated with the patent infringement lawsuit brought against us. The larger than usual increase in the second quarter of 2000 was due primarily to the internal costs associated with negotiating the research & development and stock purchase agreements with ENEL and its subsidiary, ENEL Distribuzione, S.p.A.

Non-recurring charge. In 1999, we accrued a non-recurring charge related to our decision to relocate our corporate headquarters from Palo Alto to a temporary headquarters facility in Sunnyvale, California. The non-recurring benefit recorded in the second quarter of 2000 reflects the reversal of the excess of the estimate over the actual expenditures for this non-recurring charge.

Interest and other income, net. Interest and other income, net, varies from quarter to quarter depending on the average amount of cash, cash equivalents, and short-term investments we have invested during the quarter. These balances can change on a monthly basis due to receivables collection efforts, changes in inventory levels, expense timing, and other operating and investing activities. In addition, since our investment policy mandates that investments must mature within two years from the date of purchase, fluctuations in short-term interest rates can also have a material impact on our interest income from quarter to quarter. Interest income decreased sequentially in each quarter of 2001 due to a combination of each of these factors. Throughout 2001, as the Federal Reserve Board reduced short-term interest rates, the rates of return on our invested cash balances reflected corresponding decreases. In addition, throughout 2001, as our accounts receivable and inventory balances grew, and as capital expenditures related to our new corporate headquarters facility in San Jose increased, our average balance of invested cash decreased. Lastly, late in the third quarter of 2001, our Board of Directors approved a stock repurchase program, under which we bought 265,000 shares of our common stock for a total price of \$3.2 million. This repurchase further reduced our average invested cash balance later in the year and resulted in decreased interest income in the fourth quarter. The increase in interest income in the third and fourth quarters of 2000 was primarily due to the investment late in the third quarter of approximately \$130.7 million generated from the sale of 3,000,000 shares of common stock to ENEL. To a lesser extent, a slightly higher average yield on our short-term investment portfolio also contributed to the increase.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read in conjunction with the consolidated financial statements and notes thereto, included elsewhere in this Annual Report. The following discussion contains forward-looking statements including, without limitation, statements regarding the anticipated completion of transactions, our liquidity position, and our expected overall growth that involve risks and uncertainties. Our actual results could differ materially from the results contemplated by these forward-looking statements due to certain factors, including those discussed below in "Factors That May Affect Future Results Of Operations" and elsewhere in this Annual Report.

Overview

Based in San Jose, California, Echelon was incorporated in California in February 1988, and reincorporated in Delaware in January 1989. We develop, market and support a wide array of products and services based on our LONWORKS technology that enable OEMs and systems integrators to design and implement open, interoperable, distributed control networks. We offer these hardware and software products to OEMs and systems integrators in the building, industrial, transportation, utility/home and other automation markets. We also provide a variety of technical training courses related to our products and the underlying technology. Our customers also rely on us to provide customer support on a per-incident or annual contract basis.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities. On an on-going basis, we evaluate our estimates, including those related to our investments, allowance for doubtful accounts, revenues, inventories, asset impairments, income taxes, commitments and contingencies. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ from these estimates under different assumptions or conditions.

For an overview of our significant accounting policies, we refer you to Note 2 to the consolidated financial statements included in this 10-K filing. We believe the following critical accounting policies are those that are the most important to the presentation of our financial statements and require the most difficult, subjective, and complex judgments.

Estimating Sales Returns and Allowances. We sell our products and services to OEM's, systems integrators, and our other customers directly through our sales force and indirectly through distributors around the world. Sales to certain distributors are made under terms allowing certain rights of return. Sales to EBV, our largest distributor, accounted for 16.9% of total net revenues for 2001, 26.5% of total net revenues for 2000, and 27.3% of total net revenues in 1999. Worldwide sales to distributors, including those to EBV, accounted for approximately 26.9% of total net revenues for 2001, 41.1% of total net revenues for 2000, and 41.9% of total net revenues for 1999.

Net revenue consists of product and service revenue reduced by estimated sales returns and allowances. Provisions for estimated sales returns and allowances, which are based on historical trends, contractual terms and other available information, are recorded at the time of sale. As part of our revenue recognition policy, management must make estimates of potential future product returns related to product revenue in the current period. Management analyzes historical returns, current economic trends, and changes in customer demand and acceptance of our products when evaluating the adequacy of the sales returns and other allowances.

To estimate potential product returns from distributors other than EBV, management analyzes historical returns and the specific contractual return rights of each distributor. In the case of EBV, we

further refine this analysis by reviewing month-end inventory levels at EBV, shipments in transit to EBV, EBV's historical sales volume by product, and forecasted sales volumes for some of EBV's larger customers. Significant management judgments and estimates must be made and used in connection with establishing these distributor related sales returns and other allowances in any accounting period. Material differences may result in the amount and timing of our revenue for any period if management made different judgments or utilized different estimates.

Other material sales related estimates include our allowance for sales discounts and rebates that we identify and reserve for at the time of sale. Our allowances for sales returns and other sales related reserves were approximately \$1.6 million as of December 31, 2001 and \$1.6 million as of December 31, 2000.

Allowance for Doubtful Accounts. We evaluate the collectibility of our accounts receivable based on a combination of factors. In circumstances where we are aware of a specific customer's inability to meet its financial obligations to us, we record a specific allowance against amounts due to reduce the net recognized receivable to the amount we reasonably believe will be collected. For all other customers, we recognize allowances for doubtful accounts based on the length of time the receivables are past due, the current business environment, customer credit-worthiness, changes in our customers' payment patterns and our historical experience. If the financial condition of our customers were to deteriorate or if economic conditions worsened, additional allowances may be required in the future. Our allowance for doubtful accounts was \$510,000 as of December 31, 2001 and \$300,000 as of December 31, 2000.

Inventory Valuation. At each balance sheet date, we evaluate our ending inventories for excess quantities and obsolescence. This evaluation includes analyses of sales levels by product and projections of future demand. Inventories on hand, in excess of forecasted demand, generally one year or less, are not valued. In addition, we write off inventories that are considered obsolete. Remaining inventory balances are adjusted to approximate the lower of our standard manufacturing cost or market value. If future demand or market conditions are less favorable than our projections, additional inventory write-downs may be required and would be reflected in cost of sales in the period the revision is made. Our reserve for excess and obsolete inventory was approximately \$1.2 million as of December 31, 2001 and \$523,000 as of December 31, 2000.

Warranty Reserves. When evaluating the reserve for warranty costs, management takes into consideration the term of the warranty coverage, the quantity of product in the field that is currently under warranty, historical return rates, historical costs of repair, and knowledge of new products introduced. If any of these factors were to change materially in the future, additional warranty reserves may be required. Our reserve for warranty costs was \$119,000 as of December 31, 2001 and \$104,000 as of December 31, 2000.

Deferred Income Taxes. We record a valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be realized. Based on our historical net operating losses, and the uncertainty of our future operating results, we have recorded a valuation allowance that fully reserves against our deferred tax assets. If we later determine that, more likely than not, some or all of the net deferred tax assets will be realized, then some or all of the previously provided valuation allowance would be reversed. Our deferred tax asset valuation allowance was \$46.5 million as of December 31, 2001 and \$45.9 million as of December 31, 2000.

Valuation of Goodwill and Other Intangible Assets. We assess the impairment of goodwill and identifiable intangible assets whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors we consider important which could trigger an impairment review include the following:

- significant underperformance relative to expected historical or projected future operating results;
- significant changes in the manner or use of the acquired assets or the strategy for our overall business;

- significant negative industry or economic trends; and
- significant changes in the composition of the intangible assets acquired.

When we determine that the carrying value of goodwill and other intangible assets may not be recoverable based upon the existence of one or more of the above indicators, we measure any impairment based on a projected discounted cash flow method using a discount rate determined by our management to be commensurate with the risk inherent in our current business model. Net goodwill and other intangible assets amounted to \$2.5 million as of December 31, 2001.

In January 2002, Statement of Financial Accounting Standards ("SFAS") No. 142, "Goodwill and Other Intangible Assets" became effective and, as a result, we will cease to amortize approximately \$2.0 million of goodwill. During 2001, we recorded amortization expenses totaling approximately \$289,000 against this balance and would have charged approximately \$327,000 of amortization in 2002. In lieu of amortization, SFAS No. 142 now requires that we perform an initial impairment review of our goodwill in 2002 and at least an annual impairment review thereafter. We do not currently expect to record an impairment charge upon the completion of the initial impairment review. However, at the time the review is completed, it is possible that a material impairment charge will need to be recorded.

Results of Operations

Net Revenue

	Years Ended December 31,			2001 over 2000 % Change	2000 over 1999 % Change
	2001	2000	1999		
U.S. and unallocated	\$16,775	\$16,557	\$14,955	1.3%	10.7%
International	59,814	32,742	24,811	82.7%	32.0%
Total	<u>\$76,589</u>	<u>\$49,299</u>	<u>\$39,766</u>	55.4%	24.0%
	Years Ended December 31,			2001 over 2000 % Change	2000 over 1999 % Change
	2001	2000	1999		
ENEL related	\$31,048	\$ 1,545	\$ 0	1,909.6%	—
Non-ENEL related	45,541	47,754	39,766	(4.6%)	20.1%
Total	<u>\$76,589</u>	<u>\$49,299</u>	<u>\$39,766</u>	55.4%	24.0%
	Years Ended December 31,			2001 over 2000 % Change	2000 over 1999 % Change
	2001	2000	1999		
Product	\$74,777	\$47,261	\$37,546	58.2%	25.9%
Service	1,812	2,038	2,220	(11.1%)	(8.2%)
Total	<u>\$76,589</u>	<u>\$49,299</u>	<u>\$39,766</u>	55.4%	24.0%
% of Total Net Revenue	Years Ended December 31,			2001 over 2000 % Change	2000 over 1999 % Change
	2001	2000	1999		
Product	97.6%	95.9%	94.4%	1.7%	1.5%
Service	2.4%	4.1%	5.6%	(1.7%)	(1.5%)
Total	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	0.0%	0.0%

Net revenues for 2001 increased 55.4 % as compared to 2000 and net revenues for 2000 increased 24.0% compared to 1999. The increase in net revenues for 2001 compared to 2000 related primarily to volume shipments under the ENEL program, partially offset by a slight reduction in non-ENEL related revenues resulting from the worldwide economic slowdown. We believe that net revenues will continue to increase in 2002, due to increased quantities of product shipped under the ENEL program. The increase in net revenues for 2000 compared to 1999 related primarily to increased sales of non-ENEL related products. This was especially due to increased demand for our control and connectivity, network

services and LonPoint products, as well as revenues generated from the sale of our new iLON 1000 Internet Servers. Initial low volume shipments to ENEL also contributed to the growth in revenues in 2000.

Domestic and unallocated revenues remained virtually flat in 2001 as compared to 2000. International revenues increased 82.7% during the same time period due to volume shipments under the ENEL program. Without ENEL revenues of \$31.0 million in 2001 and \$1.5 million in 2000, international revenues would have reflected a 7.8% decline as compared to 2000. This was due primarily to the worldwide economic slowdown and, to a lesser extent, the impact of exchange rates, principally the Japanese Yen, on sales made in foreign currencies. We believe that international revenues will continue to increase in 2002, due to increased quantities of product shipped under the ENEL program. Domestic and unallocated revenues in 2000 increased 10.7% over 1999, primarily due to increased demand for our control and connectivity, LonPoint and new iLON Internet Server products, partially offset by decreases in network services products and customer support services. International revenues in 2000 increased 32.0% over amounts recorded in 1999, primarily due to robust demand across all hardware products. To a lesser extent, initial low volume shipments to ENEL also contributed to the growth in international revenues in 2000.

The 58.2% increase in product revenues for 2001 compared to 2000 was primarily driven by volume shipments under the ENEL program. Without ENEL product revenues of approximately \$30.8 million in 2001 and \$1.5 million in 2000, product revenues would have decreased by approximately \$1.8 million, or 3.9% in 2001 as compared to 2000. This was primarily due to the worldwide economic slowdown and, to a lesser extent, the impact of exchange rates, principally the Japanese Yen, on sales made in foreign currencies. We believe that product revenues in 2002 will continue to increase due to increased quantities of product being shipped under the ENEL program. We believe that non-ENEL related product shipments will remain flat so long as the worldwide economic slowdown continues. Product revenues for 2000 increased 25.9% over amounts recorded in 1999, primarily due to increased demand across all of our hardware product lines, including the new iLON 1000 Internet Servers.

Service revenues decreased 11.1% during 2001 as compared to 2000, primarily due to reduced training revenue, partially offset by \$200,000 of custom software development services which we performed for ENEL. In 2000, service revenues decreased 8.2% over 1999 amounts due primarily to decreased customer support renewal rates, partially offset by increased training revenues.

Cost of Revenues

	Years Ended December 31,			2001 over 2000 % Change	2000 over 1999 % Change
	2001	2000	1999		
Product	\$34,842	\$18,225	\$14,297	91.2%	27.5%
Service	2,347	2,017	1,529	16.4%	31.9%
Total	\$37,189	\$20,242	\$15,826	83.7%	27.9%
Gross Profit	\$39,400	\$29,057	\$23,940	35.6%	21.4%

As a % of Net Revenue	Years Ended December 31,			2001 over 2000 % Change	2000 over 1999 % Change
	2001	2000	1999		
Product	45.5%	37.0%	36.0%	8.5%	1.0%
Service	3.1%	4.1%	3.8%	(1.0%)	0.3%
Total	48.6%	41.1%	39.8%	7.5%	1.3%
Gross Profit	51.4%	58.9%	60.2%	(7.5%)	(1.3%)

Cost of product. Cost of product revenue consists of costs associated with the purchase of components, subassemblies, and finished goods, as well as allocated labor, overhead and manufacturing variances associated with the packaging, preparation and shipment of products. Cost of product revenues for 2001 increased 91.2% to \$34.8 million from \$18.2 million in 2000. These costs represented a product

gross margin of 53.4% in 2001 and 61.4% in 2000. The decrease in product gross margin percentages in 2001 was due primarily to volume shipments of product under the ENEL program. Due to the large quantities of product shipped under the ENEL program, we sell these products to ENEL and its subcontract manufacturers at prices that yield much lower gross profit percentages than our historical averages. To a lesser extent, changes in the product mix sold in each year, as well as fluctuations in overhead spending rates, also impacted gross margins in 2001. Cost of product revenues for 2000 increased 27.5% to \$18.2 million from \$14.3 million in 1999. These costs represented a product gross margin percentage of 61.4% in 2000 and 61.9% in 1999. The slight decrease in product gross margin percentages was due to the different mix of product sold in each year.

Cost of service. Cost of service revenue consists of employee-related costs as well as direct costs incurred in providing training, customer support, and custom software development services. Cost of service revenue for 2001 was \$2.3 million compared to \$2.0 million in 2000. These costs represented service gross margins of (29.5)% in 2001 and 1.0% in 2000. The decrease in service gross margin percentage in 2001 compared to 2000 was primarily due to a decrease in training revenue, \$200,000 of costs related to the ENEL custom software development project, and increased personnel costs. Cost of service revenue for 2000 was \$2.0 million compared to \$1.5 million in 1999. These costs represented service gross margins of 1.0% in 2000 and 31.1% in 1999. The decrease in service gross margin percentage in 2000 compared to 1999 was primarily due to a decrease in customer support revenue and increased personnel costs, partially offset by a slight increase in training revenue.

Operating Expenses

	Years Ended December 31,			2001 over 2000 % Change	2000 over 1999 % Change
	2001	2000	1999		
Product Development	\$17,028	\$11,159	\$ 9,214	52.6%	21.1%
Sales and Marketing	15,787	15,949	15,152	(1.0%)	5.3%
General and Administrative ..	6,942	5,787	4,101	20.0%	41.1%
Non-recurring Charge/(Benefit)	—	(48)	549	—%	(108.7%)
Gross Profit	<u>\$39,757</u>	<u>\$32,847</u>	<u>\$29,016</u>	<u>21.0%</u>	<u>13.2%</u>
As a % of Net Revenue	Years Ended December 31,			2001 over 2000 % Change	2000 over 1999 % Change
	2001	2000	1999		
Product Development	22.2%	22.6%	23.2%	(0.4%)	(0.6%)
Sales and Marketing	20.6%	32.4%	38.1%	(11.8%)	(5.7%)
General and Administrative ..	9.1%	11.7%	10.3%	(2.6%)	1.4%
Non-recurring Charge/(Benefit)	0.0%	(0.1%)	1.4%	0.1%	(1.5%)
Total Operating Expenses	<u>51.9%</u>	<u>66.6%</u>	<u>73.0%</u>	<u>(14.7%)</u>	<u>(6.4%)</u>

Product development. Product development expenses consist of costs associated with the development of new technologies and products, and are primarily made up of payroll and related expenses, expensed material, facility costs, and depreciation on property, plant and equipment used in development activities. In addition, amortization of purchased technology and related intangibles are also included in product development costs. Our development projects include, but are not necessarily limited to, the development of hardware and software products to support the ENEL program, the development of other hardware products including transceivers, control modules, routers, network interface devices, and i.LON Internet Servers, and the development of software, including network management software and development tools.

Product development expenses for 2001 increased 52.6% to \$17.0 million from \$11.2 million in 2000. These expenses represented 22.2% of total revenues in 2001 and 22.6% of total revenues in 2000. The increase in product development spending between the two years was driven primarily by the

development of products for the ENEL program, and to a lesser extent, by the development of other hardware and software products. The primary components of the \$5.9 million spending increase between the two years were payroll and related costs associated with the addition of 23 engineers to our development staff, an increase in our use of external consultants who performed activities supplementing our internal development efforts, increased facilities expenses associated with increased development personnel, increased expensed material, and increased depreciation. In addition, in February 2001 we acquired ARIGO Software GmbH of Beckum, Germany. The additional eleven development personnel and facilities costs associated with the acquisition, as well as the amortization of the purchased technology and related intangibles, contributed approximately \$1.1 million to development spending in 2001.

Product development expenses for 2000 increased 21.1% to \$11.2 million from \$9.2 million in 1999. These expenses represented 22.6% of total revenues in 2000 and 23.2% of total revenues in 1999. The \$1.9 million increase in spending between the two years was primarily the result of increased salaries and other costs related to the hiring of additional engineering personnel as well as an increase in our use of external consultants who support the development of new and existing products.

Sales and marketing. Sales and marketing expenses consist primarily of payroll and related expenses, commissions to sales personnel, travel and entertainment, advertising and product promotion, and facilities costs associated with our sales and support offices around the world. Sales and marketing expenses for 2001 decreased to \$15.8 million from \$15.9 million in 2000. These expenses represented 20.6% of total revenues in 2001 and 32.4% of total revenues in 2000. The slight decrease in sales and marketing expenses in 2001 from 2000 was primarily related to reduced advertising and trade show expenses and reduced travel and entertainment costs, partially offset by increased payroll and related expenses resulting from the addition of seven employees to our sales and marketing staff during the year. To a lesser extent, the strength of the U.S. dollar against local currencies where we conduct our sales and marketing operations, particularly in Japan, also contributed to the reduced level of sales and marketing expenses in 2001.

Sales and marketing expenses for 2000 increased to \$15.9 million from \$15.2 million in 1999. These expenses represented 32.4% of total revenues in 2000 and 38.1% of total revenues in 1999. The increase in selling costs in 2000 was primarily the result of increased worldwide personnel expenses, including new employees in the sales and marketing areas as well as increased commissions related to increased revenues.

General and administrative. General and administrative expenses consist primarily of payroll and related expenses for executive, accounting and administrative personnel, insurance, professional fees and other general corporate expenses. General and administrative expense for 2001 increased to \$6.9 million from \$5.8 million in 2000. These expenses represented 9.1% of total revenues in 2001 and 11.7% of total revenues in 2000. The increase in general and administrative expenses was primarily due to the \$475,000 settlement charge related to the Calabrese patent infringement lawsuit, an increase in our allowance for bad debts, increased payroll and related expenses resulting from the addition of three employees during the year, increased legal fees, and increased insurance premiums.

General and administrative expense for 2000 increased to \$5.8 million from \$4.1 million in 1999. These expenses represented 11.7% of total revenues in 2000 and 10.3% of total revenues in 1999. The increase in general and administrative expenses was due to increased personnel and shareholder communication costs, increased legal defense fees associated with a patent infringement lawsuit brought against us, as well as one-time internal costs associated with the negotiation of the Research & Development and stock purchase agreements with ENEL and its subsidiary, ENEL Distribuzione, S.p.A., in the second quarter of 2000.

Non-recurring charge/(benefit). In the fourth quarter of 1999, our Board of Directors approved a relocation plan to exit our previous Palo Alto, California leased facilities and relocate to a new leased facility in San Jose, California. During the first two quarters of 2000, we temporarily moved our operations from Palo Alto to a facility in Sunnyvale, California. In October 2001, we relocated to our new corporate headquarters in San Jose. As a result of vacating the Palo Alto facility, we recorded \$549,000, which was charged as an expense in 1999 and was paid over the remaining lease term through June 30, 2000. In the second quarter of 2000, we recorded a reversal of the excess of the estimate over the actual expenditures for the non-recurring charge of \$48,000.

Interest and other income, net

	Years Ended December 31,			2001 over 2000 % Change	2000 over 1999 % Change
	2001	2000	1999		
Interest and other income, net	\$6,655	\$4,019	\$1,355	65.6%	196.6%
As a % of Net Revenue	Years Ended December 31,			2001 over 2000 % Change	2000 over 1999 % Change
	2001	2000	1999		
Interest and other income, net	8.7%	8.2%	3.4%	0.5%	4.8%

Interest and other income, net, primarily reflects interest earned on our cash and short-term investment balances. Interest and other income, net for 2001 increased to \$6.7 million from \$4.0 million in 2000. This increase was primarily due to the higher average balance of invested cash during 2001 offset by decreasing rates of return on these invested funds as short-term interest rates declined during 2001. Interest and other income, net for 2000 increased to \$4.0 million from \$1.4 million in 1999. This was primarily due to the investment late in the third quarter of approximately \$130.7 million generated from the sale of 3.0 million shares of our common stock to ENEL. To a lesser extent, a slightly higher average yield on our short-term investment portfolio also contributed to the increase.

Provision for income taxes

	Years Ended December 31,			2001 over 2000 % Change	2000 over 1999 % Change
	2001	2000	1999		
Provision for income taxes . . .	\$252	\$145	\$186	73.8%	(22.0%)
As a % of Net Revenue	Years Ended December 31,			2001 over 2000 % Change	2000 over 1999 % Change
	2001	2000	1999		
Provision for income taxes . . .	0.3%	0.3%	0.5%	0.0%	(0.2%)

The 2001 provision for income taxes relates to federal, state and foreign taxes. The federal taxes provided were \$34,000 for 2001, and relate primarily to alternative minimum taxes. We did not provide any federal taxes in 2000 or 1999 due to our net operating losses. State taxes have been provided for various state income and minimum taxes. The state taxes provided were \$111,000 for 2001, \$28,000 for 2000, and \$25,000 for 1999. Foreign taxes have been provided for certain profitable foreign subsidiaries. The foreign taxes provided were \$107,000 for 2001, \$117,000 for 2000, and \$161,000 for 1999.

Liquidity and Capital Resources

Since our inception, we have financed our operations and met our capital expenditure requirements primarily from the sale of preferred stock and common stock. From our inception through December 31, 2001, we raised \$266.2 million from the sale of preferred stock and common stock.

In July 1998, we consummated an initial public offering of 5,000,000 shares of our common stock at a price to the public of \$7.00 per share. The net proceeds from the offering were about \$31.7 million. Concurrent with the closing of our initial public offering, 7,887,381 shares of convertible preferred stock were converted into an equivalent number of shares of common stock. The net proceeds received upon the consummation of such offering were invested in short-term, investment-grade, interest-bearing instruments.

In September 2000, we consummated a sale of 3.0 million shares of our common stock to ENEL. The net proceeds of the sale were about \$130.7 million.

In September 2001, our Board of Directors approved a stock repurchase program which authorizes us to repurchase up to 2.0 million shares of our common stock, in accordance with Rule 10b-18 and other applicable laws, rules and regulations. Unless otherwise terminated by the Board, the program will be in

effect for a period of two years from the date of the first purchase under the program. In September 2001, we repurchased 265,000 shares under the program at a cost of \$3.2 million. As of December 31, 2001, approximately 1.7 million shares remained available for repurchase under the program.

As of December 31, 2001, we had working capital, defined as current assets less current liabilities, of \$151.7 million, which was a decrease of about \$12.6 million compared to working capital of \$164.4 million as of December 31, 2000. Cash, cash equivalents and short-term investments decreased by \$39.1 million in 2001 from 2000 primarily due to increases in accounts receivable, property and equipment, other long-term assets, other current assets, and inventories.

As of December 31, 2001, we had cash, cash equivalents and short-term investments of \$111.7 million. Net cash used in operating activities was \$17.8 million for 2001, \$6.0 million for 2000 and \$4.6 million for 1999. Cash used in operating activities in 2001 was primarily due to increases in accounts receivable, other current assets, and inventories, partially offset by net income for the year and an increase in accounts payable. Cash used in operating activities in 2000 was primarily due to increases in inventory, accounts receivable, and other current assets, partially offset by an increase in accounts payable. Cash used in operating activities in 1999 was principally the result of the net loss, an increase in accounts receivable and a decrease in deferred revenue, which were only partially offset with an increase in accounts payable.

Net cash used in investing activities in 2001 of \$75.6 million was principally due to the purchase of available-for-sale investments and capital expenditures related to our new corporate headquarters facility in San Jose, offset by the proceeds from sales and maturities of available-for-sale investments. Net cash used in investing activities in 2000 of \$21.1 million was principally due to the purchase of available-for-sale investments, capital expenditures, and changes in other long-term assets, offset by the proceeds from sales and maturities of available-for-sale investments. Net cash provided by investing activities in 1999 of \$1.5 million was principally due to the proceeds from maturities and sales of available-for-sale investments offset by purchases of available-for-sale investments and capital expenditures.

We believe that our existing available cash, cash equivalents and short-term investments will satisfy our projected working capital and other cash requirements for at least the next twelve months. However, in the unlikely event that we would require additional financing within this period, such financing may not be available to us in the amounts or at the times that we require, or on acceptable terms. If we fail to obtain additional financing, when and if necessary, our business would be harmed.

New Accounting Standards

In July 2001, the Financial Accounting Standards Board issued SFAS No. 141 ("SFAS 141"), "Business Combinations," which supersedes Accounting Principles Board ("APB") Opinion No. 16, "Business Combinations". SFAS 141 eliminates the pooling-of-interests method of accounting for business combinations and modifies the application of the purchase accounting method. The elimination of the pooling-of-interest method is effective for transactions initiated after September 30, 2001. The remaining provisions of SFAS 141 will be effective for transactions accounted for using the purchase method that are completed after September 30, 2001. We believe that the adoption of this Statement will not have a material impact on our financial position, results of operations, or cash flows.

In July 2001, the FASB also issued SFAS No. 142 ("SFAS 142"), "Goodwill and Intangible Assets," which supersedes APB Opinion No. 17, "Intangible Assets". Under the new Statement, goodwill and intangible assets with indefinite lives acquired on or after June 29, 2001 are not amortized, but instead are tested for impairment annually, primarily using the fair value approach, when there is an impairment indicator. In addition, SFAS 142 provides that other intangible assets will continue to be valued and amortized over their estimated lives; in-process research and development will continue to be written off immediately; all acquired goodwill will be assigned to reporting units for purposes of impairment testing and segment reporting; and, effective January 1, 2002, goodwill and intangible assets with indefinite lives acquired before June 29, 2001 will no longer be subject to amortization, but will instead be subject to impairment tests in accordance with the new Statement.

Upon adoption of SFAS 142, on January 1, 2002, we will no longer amortize goodwill, thereby eliminating annual goodwill amortization of approximately \$360,000 based on anticipated amortization

for 2002. Goodwill amortization for the year ended December 31, 2001 was approximately \$289,000. As of December 31, 2001, the net goodwill balance is \$1.4 million and is included in other long-term assets.

In October 2001, the FASB issued SFAS No. 144 ("SFAS 144"), "Accounting for the Impairment or Disposal of Long-Lived Assets". SFAS 144 supercedes SFAS No. 121 by requiring that one accounting model be used for long-lived assets to be disposed of by sale, whether previously held and used or newly acquired, and by broadening the presentation of discontinued operations to include more disposal transactions. SFAS 144 will be effective for fiscal years beginning after December 15, 2001. We believe that the adoption of this Statement will not have a material impact on our financial position, results of operations, or cash flows.

Subsequent Event

On January 31, 2002, we acquired privately held BeAtHome.com, Inc. of Fargo, North Dakota. In exchange for all of the outstanding shares of BeAtHome, we paid \$3.0 million in cash (subject to certain adjustments) and assumed certain liabilities. We will account for the acquisition as a purchase transaction in accordance with SFAS 141.

FACTORS THAT MAY AFFECT FUTURE RESULTS OF OPERATIONS

Our future results could be significantly harmed if our project with ENEL is not successful.

In June 2000, we entered into a research and development agreement with an affiliate of ENEL S.p.A., an Italian utility company. Under the terms of the contract, we agreed to work with ENEL to integrate our LONWORKS technology into ENEL's "Contatore Elettronico" remote metering management project in Italy. During 2001, revenue attributable to the Contatore Elettronico project was approximately \$31 million, or 41% of our total revenue. If the Contatore Elettronico project achieves its targeted volumes during 2002, we expect this project to account for more than 60% of our total revenues for the year.

We face a number of risks as we undertake this project, including:

- a dispute could develop between ENEL and our company regarding product suitability, quality, price, quantities or other issues. If any dispute is not resolved in a timely manner, the project could be delayed, could become less profitable to us, or either we or ENEL could seek to terminate the research and development agreement;
- our research and development activities under this project might be unsuccessful, or might not be commercially exploitable;
- the Contatore Elettronico project might not meet target dates;
- the contract equipment manufacturers that ENEL has selected to manufacture electricity meters, or Meter Manufacturers, may not achieve their intended production levels;
- the Meter Manufacturers may not maintain product quality at the levels required to successfully install electricity meters;
- the Meter Manufacturers may not maintain sufficient net working capital to fund production of electricity meters;
- the Meter Manufacturers may experience excess raw material and finished goods inventories if they fail to achieve intended production and/or quality levels and may therefore reduce future purchases of our products until their inventories return to acceptable levels;
- if the Meter Manufacturers fail to meet their intended production or quality levels, fail to pay us in accordance with agreed-upon payment terms for products we ship to them, or breach any of their agreements with us, we could elect to cancel orders for products from Meter Manufacturers, delay shipment of products to Meter Manufacturers, or otherwise fail to achieve our revenue targets for the Contatore Elettronico project;

- once they have been manufactured, electricity meters or other products used in the Contatore Elettronico project may not be installed by ENEL in accordance with ENEL's scheduled roll-out plan. As a result, excess inventories could develop for periods of time, forcing us to reduce product shipments to ENEL and the Meter Manufacturers;
- ENEL may not successfully develop or maintain the management center software to monitor and control the electricity meters and other products used in the Contatore Elettronico project. As a result, ENEL might reduce purchases of electricity meters or other products, thereby reducing future shipments of our products;
- the products we develop for the Contatore Elettronico project might not yield economic returns;
- the research and development agreement between ENEL and our company might be terminated if, among other things, either party materially breaches its obligations under the agreement; or
- third parties may contest part or all of our agreement with ENEL.

If our efforts under our research and development agreement with ENEL or the related Contatore Elettronico project are not successful, our revenues and income could suffer and this could significantly and adversely affect our financial condition and operating results.

We have a history of losses, and we may incur losses in the future.

We generated a profit of \$6.0 million for the year ending December 31, 2001, and although this was the sixth consecutive quarter in which we have generated a profit, we have incurred net losses in all other periods since our inception. As of December 31, 2001, we had an accumulated deficit of \$88.3 million. We have invested and continue to invest significant financial resources in product development, marketing and sales. If our revenues do not increase significantly as a result of these expenditures, we may not be able to sustain profitability. There is also no guarantee that our profitability will continue or increase on a quarterly or annual basis. Our future operating results will depend on many factors, including:

- the timely installation of ENEL's Contatore Elettronico remote metering management project;
- the adoption of our products by service providers for use in utility and/or home automation projects similar to ENEL's Contatore Elettronico project;
- the return of worldwide economic growth, particularly in certain countries such as Japan, and in certain industries such as semiconductor manufacturing equipment;
- the acceptance of our products by OEMs, systems integrators, service providers and end-users;
- the level of competition that we face;
- our ability to attract new customers in light of increased competition;
- our ability to develop and market new products in a timely and cost-effective basis, or at all;
- one-time charges or additional ongoing operational expenses associated with our acquisition of BeAtHome.com and any future business acquisitions; and
- general economic conditions.

As of December 31, 2001, we had net operating loss carry forwards for Federal income tax reporting purposes of about \$89.9 million and for state income tax reporting purposes of about \$8.0 million, which expire at various dates through 2021. In addition, as of December 31, 2001, we had tax credit carry forwards of about \$10.1 million, which expire at various dates through 2021. The Internal Revenue Code of 1986, as amended, contains provisions that limit the use in future periods of net operating loss and credit carry forwards upon the occurrence of certain events, including significant changes in ownership interests. We have performed an analysis of our ownership changes and have reported the net operating loss and credit carry forwards considering such limitations. We had deferred tax assets, including our net operating loss carry forwards and tax credits, totaling about \$46.5 million as of December 31, 2001. We have recorded a valuation allowance for the entire deferred tax asset as a result of uncertainties regarding the realization of the asset balance, our history of losses and the variability of our operating results.

Fluctuations in our operating results may cause our stock price to decline.

Our quarterly and annual results have varied significantly, and we have, on occasion, failed to meet securities analysts' expectations in the past. Our future results may fluctuate and may not meet analysts' expectations in some future period. As a result, the price of our common stock could fluctuate or decline. The factors that could cause this variability, many of which are outside of our control, include the following:

- the ENEL Project may fail to meet analysts' expectations;
- we may fail to meet our revenue and earnings guidance;
- the rates at which OEMs purchase our products and services may fluctuate;
- we may fail to introduce new products on a timely basis or before the end of an existing product's life cycle;
- downturns in any customer's or potential customer's business, or declines in general economic conditions, could cause significant reductions in capital spending, thereby reducing the levels of orders from our customers;
- we may face increased competition;
- market acceptance of our products may decrease;
- our customers may delay or cancel their orders;
- the mix of products and services that we sell may change to a less profitable mix;
- shipment and payment schedules may be delayed;
- our pricing policies or those of our competitors may change;
- our product distribution may change; and
- product ratings by industry analysts and endorsements of competing products by industry groups could hurt the market acceptance of our products.

In addition, our expense levels are based, in significant part, on the future revenues that we expect. Consequently, if our revenues are less than we expect, our expense levels could be disproportionately high as a percentage of total revenues, which would negatively affect our profitability.

The undetermined market acceptance of our products makes it difficult to evaluate our future prospects.

We face a number of risks as an emerging company in a rapidly changing and developing new market, and you must consider our prospects in light of the associated risks. Our future operating results are difficult to predict due to many factors, including the following:

- our targeted markets have not yet accepted many of our products and technologies;
- many of our customers do not fully support open, interoperable networks, and we believe this reduces the market for our products;
- we may not anticipate changes in customer requirements and, even if we do so, we may not be able to develop new or improved products that meet these requirements in a timely manner, or at all;
- the markets in which we operate require rapid and continuous development of new products, and we have failed to meet some of our product development schedules in the past;
- potential changes in voluntary product standards around the world can significantly influence the markets in which we operate; and
- our industry is very competitive and many of our competitors have far greater resources and may be prepared to provide financial support from their other businesses in order to compete with us.

If our OEMs do not employ our products and technologies our revenues could decrease significantly.

To date, a substantial portion of our product sales has been to OEMs. The product and marketing decisions made by OEMs significantly affect the rate at which our products are used in control networks. We believe that since OEMs in certain industries receive a large portion of their revenues from sales of products and services to their installed base, these OEMs have tended to moderate the rate at which they incorporate LONWORKS technology into their products. They may believe that a more rapid transition to LONWORKS technology could harm their installed base business. Furthermore, OEMs that manufacture and promote products and technologies that compete or may compete with us may be particularly reluctant to employ our products and technologies to any significant extent, if at all. We may not be able to maintain or improve the current rate at which our products are accepted by OEMs and others, which could decrease our revenues.

If we do not maintain and expand our distribution channels our revenues could decrease significantly.

Currently, significant portions of our revenues are derived from sales by EBV, the sole independent distributor of our products to OEMs in Europe. EBV accounted for 16.9% of our total revenues in 2001, 26.5% of our total revenues in 2000, and 27.3% of our total revenues in 1999. Our current agreement with EBV expires in December 2002. In addition, as part of our distribution strategy, we intend to develop distribution arrangements with systems integrators. In particular, we expect that a significant portion of our future revenues will be derived from sales by such systems integrators. If EBV, or any other existing or future distributor, fails to dedicate sufficient resources and efforts to marketing and selling our products, our revenues could decrease. If EBV significantly reduces its inventory levels for our products, both our revenues and customer service levels would decrease. In that case, we might be required to add our own pan-European distribution capability to meet the needs of our customers. Our business will be harmed if any of the following occurs:

- we fail to develop new distribution channels;
- we fail to maintain the EBV arrangement or any other distribution channels;
- EBV decides to reduce its stocking or other service levels; or
- we do not renew the EBV arrangement on a timely basis.

If OEMs fail to develop interoperable products or if our targeted markets do not accept our interoperable products, we may be unable to generate sales of our products.

Our future operating success will depend, in significant part, on the successful development of interoperable products by us and OEMs, and the acceptance of interoperable products by systems integrators and end-users. We have expended considerable resources to develop, market and sell interoperable products, and have made these products a cornerstone of our sales and marketing strategy. We have widely promoted interoperable products as offering benefits such as lower life-cycle costs and improved flexibility to owners and users of control networks. However, OEMs that manufacture and market closed systems may not accept, promote or employ interoperable products, since doing so may expose their businesses to increased competition. In addition, OEMs might not, in fact, successfully develop interoperable products, or their customers might not accept their interoperable products. If OEMs fail to develop interoperable products, or our markets do not accept interoperable products, our revenues and operating results will suffer.

We depend on a limited number of key manufacturers for Neuron Chips and use contract electronic manufacturers for most of our products requiring assembly. If any of these manufacturers terminates or decreases its relationships with us, we may not be able to supply our products and our revenues would suffer.

The Neuron Chip is an important component that our customers use in control network nodes. In addition, the Neuron Chip is an important device that we use in many of our products. Neuron Chips are currently manufactured and distributed by Toshiba and Cypress Semiconductor. We have entered into licensing agreements with each of Toshiba and Cypress. The agreements, among other things, grant

Toshiba and Cypress the worldwide right to manufacture and distribute Neuron Chips using technology licensed from us and require us to provide support and unspecified updates to the licensed technology over the terms of the agreements. The Cypress agreement expires in April 2009, and the Toshiba agreement expires in January 2010. We currently have no other source of supply for Neuron Chips and do not have resources or skills internally to replace Toshiba or Cypress as a manufacturer of Neuron Chips. Both Toshiba and Cypress are expected to play a key role in the development and marketing of LONWORKS technology. If we lose Toshiba or Cypress as a supplier, we may not be able to locate an alternate source for the design, manufacture or distribution of Neuron Chips.

Our future success will also depend significantly on our ability to manufacture our products cost-effectively and in sufficient volumes. For most of our products requiring assembly, we use contract electronic manufacturers, including WKK Technology, Able Electronics, and TYCO TEPC/Transpower. These contract electronic manufacturers procure material and assemble, test and inspect the final products to our specifications. This strategy involves certain risks. By using third parties to manufacture our products, we have reduced control over delivery schedules, product availability, manufacturing yields, quality and costs. In addition, contract electronic manufacturers can themselves experience turnover and instability, exposing us to additional risks as well as missed commitments to our customers. We will also face risks if and when we transition between contract electronic manufacturers. For example, we may have to move raw material and in process inventory between locations in different parts of the world. Also, we would be required to reestablish acceptable manufacturing processes with a new work force. We could also be liable for excess or unused inventory held by contract manufacturers for use in our products. This inventory may become obsolete as a result of engineering changes that we make. In addition, we may no longer need this inventory because of factors such as changes in our production build plans, miscommunication between us and a contract manufacturer or errors made by a contract manufacturer in ordering material for use in our products. Under our contracts with these contract electronic manufacturers, we would become liable for all or some of these excess or obsolete inventories in the event our manufacturing agreement with them is cancelled and they are unable to return the material to their suppliers.

Because we depend on sole or a limited number of suppliers, any shortage or interruptions of supply would adversely affect our revenues and/or gross profits.

We currently purchase several key products and components only from sole or limited sources. In the past, we have occasionally experienced shortages or interruptions in supply for certain of these items, which caused us to delay shipments beyond targeted or announced dates. If we experience any shortage of products or components of acceptable quality, or any interruption in the supply of these products or components, or if we are not able to procure these products or components from alternate sources at acceptable prices and within a reasonable period of time, our revenues, gross profits or both could decrease. In addition, under the terms of some of our contracts with our customers, we may also be subject to penalties if we fail to deliver our products on time.

Our markets are highly competitive. Many of our competitors have longer operating histories and greater resources than we do. If we are unable to effectively compete in the industry, our operating results could be harmed.

Competition in our markets is intense and involves rapidly changing technologies, evolving industry standards, frequent new product introductions and rapid changes in customer requirements. To maintain and improve our competitive position, we must continue to develop and introduce, on a timely and cost-effective basis, new products, features and services that keep pace with the evolving needs of our customers. The principal competitive factors that affect the markets for our control network products include the following:

- our customer service and support;
- our product reputation, quality, and performance; and
- the price and features of our products such as adaptability, scalability, the ability to integrate with other products, functionality, and ease of use.

In each of our markets, we compete with a wide array of manufacturers, vendors, strategic alliances, systems developers and other businesses. Our competitors include some of the largest companies in the electronics industry, such as Siemens in the building and industrial automation industries, Allen-Bradley (a subsidiary of Rockwell) and Group Schneider in the industrial automation industry, and Microsoft. Many of our competitors, alone or together with their trade associations and partners, have significantly greater financial, technical, marketing, service and other resources, significantly greater name recognition and broader product offerings. As a result, these competitors may be able to devote greater resources to the development, marketing and sale of their products, and may be able to respond more quickly to changes in customer requirements or product technology. In addition, those competitors that manufacture and promote closed, proprietary control systems may enjoy a captive customer base dependent on such competitors for service, maintenance, upgrades and enhancements. Most recently, Microsoft has announced a specification that it refers to as SCP (Simple Control Protocol) that is targeted at the networking of everyday devices. Microsoft has announced its intent to focus this capability on home networking applications. Products from other companies such as emWare, Ipsil, JumpTec, Lantronix, NetSilicon and Wind River Systems could also compete with our products, especially in the utility/home market.

Many of our competitors develop, support and promote alternative control systems. If we are unable to promote and expand acceptance of our open, interoperable control system, our revenues and operating results may be harmed.

Many of our current and prospective competitors are dedicated to promoting closed or proprietary systems, technologies, software and network protocols or product standards that differ from or are incompatible with ours. In some cases, companies have established associations or cooperative relationships to enhance the competitiveness and popularity of their products, or to promote these different or incompatible technologies, protocols and standards. For example, in the building automation market, we face widespread reluctance by vendors of traditional closed or proprietary control systems, who enjoy a captive market for servicing and replacing equipment, to use our interoperable technologies. We also face strong competition by large trade associations that promote alternative technologies and standards in their native countries, such as the BatiBus Club International in France, the Konnex Association in Belgium, and the European Installation Bus Association in Germany, each of which has over 100 members and licensees. Other examples include the CEBus Industry Council, which is the proponent of an alternative protocol to our LONWORKS protocol for use in the utility/home automation industry, various industry groups who promote alternative open standards such as BACnet in the building market, and a group comprised of Asea Brown Boveri, ADtranz AB, Siemens, GEC Alstrom and other manufacturers that support an alternative rail transportation protocol to our LONWORKS protocol. Our technologies, protocols or standards may not be successful in any of our markets, and we may not be able to compete with new or enhanced products or standards introduced by existing or future competitors.

We promote an open technology platform that could increase our competition.

LONWORKS technology is open, meaning that many of our technology patents are broadly licensed without royalties or license fees. As a result, our customers are capable of developing hardware and software solutions that compete with some of our products. Because some of our customers are OEMs that develop and market their own control systems, these customers in particular could develop competing products based on our open technology. For instance, all of the network management commands required to develop software that competes with our LNS software are published. This could decrease the market for our products and increase the competition that we face.

The trading price of our stock has been volatile, and may fluctuate due to factors beyond our control.

The trading price of our common stock is subject to significant fluctuations in response to numerous factors, including:

- investors may be concerned about the success of our project with ENEL;
- Microsoft, or other competitors, may announce new products or technologies;

- our quarterly operating results may vary widely;
- we or our customers may announce technological innovations or new products;
- securities analysts may change their estimates of our financial results; and
- significant stockholders may sell some or all of their holdings of our stock.

In addition, the market price of securities of technology companies, especially those in rapidly evolving industries such as ours, has been very volatile in the past. This volatility has often been unrelated or disproportionate to the operating performance of particular companies. In addition, in the future, our operating results may fall below analysts' expectations, which could adversely affect the market price of our stock.

In the future, we may be the target of securities class action lawsuits or other litigation, which could be costly and time consuming to defend.

In the past, following a period of volatility in the market price of a company's stock, securities class action lawsuits have often been instituted against such companies. In the future, we may become the target of similar litigation. If such a lawsuit were brought against us, regardless of its outcome, we would incur substantial costs and our management resources would be diverted in defending such litigation.

Our executive officers and technical personnel are critical to our business, and if we lose or fail to attract key personnel, we may not be able to successfully operate our business.

Our performance depends substantially on the performance of our executive officers and key employees. Due to the specialized technical nature of our business, we are particularly dependent on our Chief Executive Officer, our Chief Operating Officer, and our technical personnel. Our future success will depend on our ability to attract, integrate, motivate and retain qualified technical, sales, operations and managerial personnel. Competition for qualified personnel in our business areas is intense, and we may not be able to continue to attract and retain qualified executive officers and key personnel necessary to enable our business to succeed. Our product development and marketing functions are largely based in Silicon Valley, which is typically a highly competitive marketplace. It may be particularly difficult to recruit, relocate and retain qualified personnel in this geographic area. In addition, if we lose the services of any of our key personnel and are not able to find replacements in a timely manner, our business could be disrupted, other key personnel may decide to leave, and we may incur increased operating expenses in finding and compensating their replacements.

The market for our products is new and rapidly evolving. If we are not able to develop or enhance products to respond to changing market conditions, our revenues will suffer.

Customer requirements for control network products can change as a result of innovations or changes within the building, industrial, transportation, utility/home and other industries. For example, new or different standards within industry segments may be adopted, giving rise to new customer requirements. These customer requirements may or may not be compatible with our current or future product offerings. Our future success depends in large part on our ability to continually enhance our existing product offerings, lower the market price for our products, and develop new products that maintain technological competitiveness. We may not be successful in modifying our products and services to address these requirements and standards. For example, certain of our competitors may develop competing technologies based on Internet Protocols (IP) that may have advantages over our products in remote connection. In addition, from time to time, we have delayed introducing new products beyond our projected shipping date for such products. In each instance, these delays increased our costs and delayed our revenues.

Voluntary standards that are established in our markets could limit our ability to sell our products and reduce our revenues.

Standards bodies, which are formal and informal associations that attempt to set voluntary, non-governmental product standards, are influential in many of our target markets. Some of our

competitors have attempted to use voluntary standards to reduce the market opportunity for our products, or to increase the market opportunity for their own products, by lobbying for the adoption of voluntary standards that would exclude or limit the use of products that incorporate our technology. We participate in many voluntary standards organizations around the world in order to both help prevent the adoption of exclusionary standards and to promote voluntary standards for our products. However, we do not have the resources to participate in all voluntary standards processes that may affect our markets. The adoption of voluntary standards that are incompatible with our products or technology could limit the market opportunity for our products.

As a result of our lengthy sales cycle, we have limited ability to forecast the amount and timing of specific sales. If we fail to complete or are delayed in completing transactions, our revenues could vary significantly from period to period.

The sales cycle between initial customer contact and execution of a contract or license agreement with a customer can vary widely. For example, OEMs typically conduct extensive and lengthy product evaluations before making initial purchases of our products. They may further delay subsequent purchases of our products due to the OEMs' own prolonged product development and product introduction periods. Delays in our sales cycle can also result from, among other things:

- changes in our customers' budgets;
- changes in the priority our customers assign to control network development;
- the time it takes for us to educate our customers about the potential applications of and cost savings associated with our products; and
- the deployment schedule for projects undertaken by systems integrators.

We generally have little or no control over these factors, which may cause a potential customer to favor a competitor's products, or to delay or forgo purchases altogether.

Downturns in the control network technology market and related markets may decrease our revenues and margins.

The market for our products depends on economic conditions affecting the broader control network technology and related markets. Downturns in these markets may cause our OEMs and system integrators to delay or cancel projects, reduce their production or reduce or cancel orders for our products. In this environment, customers may experience financial difficulty, cease operations or fail to budget for the purchase of our products. This, in turn, may lead to longer sales cycles, delays in payment and collection, and price pressures, causing us to realize lower revenues and margins. In particular, capital spending in the technology sector has decreased over the past 18 months, and many of our customers and potential customers have experienced declines in their revenues and operations. In addition, the terrorist acts of September 11, 2001 and the possibility of subsequent terrorist activities have created an uncertain economic environment. We cannot predict the impact of these events, or of any related military action, on our customers or business. We believe that, in light of these events, some businesses may curtail or eliminate capital spending on control network technology. If capital spending in our markets declines, it may be necessary for us to gain significant market share from our competitors in order to achieve our financial goals and maintain profitability.

Defects in or misuse of our products may delay our ability to generate revenues and may increase our liabilities and expenses.

Our products may contain undetected errors or failures when first introduced or as new versions are released. In addition, our customers may improperly install or implement our products. Furthermore, because of the low cost and interoperable nature of our products, LONWORKS technology could be used in a manner for which it was not intended.

If errors or failures are found in our products, we may not be able to successfully correct them in a timely manner, or at all. Such errors or failures could delay our product shipments and divert our

engineering resources while we attempt to correct them. As a result, errors or failures in our products, or the improper installation or implementation of our products by third parties, could harm our reputation and operating results.

To address these issues, the agreements we maintain with our customers typically contain provisions intended to limit our exposure to potential errors and omissions claims as well as any liabilities arising from them. In certain very limited instances, these agreements require that we be named as an additional insured on our customer's insurance policies. However, our customer contracts and additional insured coverage may not effectively protect us against the liabilities and expenses associated with errors or failures attributable to our products.

To help reduce our exposure to these types of claims, we currently maintain errors and omissions insurance. However, it is possible that such insurance may not be available in the future or, if available, may be insufficient in amount to cover any particular claim. During 2000, the total limit for claims under these policies was \$17.0 million. Since then, we have reduced the total limit for errors and omissions claims to \$2.0 million because our insurers requested premiums that we believed were excessive. We believe that insurance premiums for errors and omissions coverage will continue to increase for the foreseeable future, which could result in increased costs or reduced limits. Consequently, if we elect to reduce our coverage, we may face increased exposure to these types of claims.

We have limited ability to protect our intellectual property rights.

Our success depends significantly upon our intellectual property rights. We rely on a combination of patent, copyright, trademark and trade secret laws, non-disclosure agreements and other contractual provisions to establish, maintain and protect these intellectual property rights, all of which afford only limited protection. We have 80 issued U.S. patents, 14 pending U.S. patent applications, and various foreign counterparts. It is possible that patents will not issue from these pending applications or from any future applications or that, if issued, any claims allowed will not be sufficiently broad to protect our technology. If any of our patents fail to protect our technology, our competitors may find it easier to offer equivalent or superior technology. We have registered or applied for registration for certain trademarks, and will continue to evaluate the registration of additional trademarks as appropriate. If we fail to properly register or maintain our trademarks or to otherwise take all necessary steps to protect our trademarks, the value associated with the trademarks may diminish. In addition, if we fail to take all necessary steps to protect our trade secrets or other intellectual property rights, we may not be able to compete as effectively in our markets.

Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our products or services or to obtain and use information that we regard as proprietary. Any of the patents, trademarks, copyrights or intellectual property rights that have been or may be issued or granted to us could be challenged, invalidated or circumvented, and any of the rights granted may not provide protection for our proprietary rights. In addition, we cannot assure you that we have taken or will take all necessary steps to protect our intellectual property rights. Third parties may also independently develop similar technology without breach of our trade secrets or other proprietary rights. We have licensed in the past and may license in the future our key technologies to third parties. In addition, the laws of some foreign countries, including several in which we operate or sell our products, do not protect proprietary rights to as great an extent as do the laws of the United States. For example, certain of our products are licensed under shrink-wrap license agreements that are not signed by licensees and therefore may not be binding under the laws of certain jurisdictions.

From time to time, litigation may be necessary to defend and enforce our proprietary rights. As a result of this litigation, we could incur substantial costs and divert management resources, which could harm our business, regardless of the final outcome. Despite our efforts to safeguard and maintain our proprietary rights both in the United States and abroad, we may be unsuccessful in doing so. Also, the steps that we take to safeguard and maintain our proprietary rights may be inadequate to deter third parties from infringing, misusing, misappropriating, or independently developing our technology or intellectual property rights; or to prevent an unauthorized third party from copying or otherwise obtaining and using our products or technology.

Regulatory actions could limit our ability to market and sell our products.

Many of our products and the industries in which they are used are subject to U.S. and foreign regulation. Government regulatory action could greatly reduce the market for our products. For example, the power line medium, which is the communications medium used by some of our products, is subject to special regulations in North America, Europe and Japan. These regulations limit the ability of companies in general to use power lines as a communication medium. In addition, some of our competitors have attempted to use regulatory actions to reduce the market opportunity for our products or to increase the market opportunity for their own products. For example, in the late 1990's, we experienced efforts by CEMA, a trade association that developed a competing home automation protocol, to persuade the FCC to mandate use of its protocol in analog television and set-top box applications. We were a petitioner in litigation arising from a related FCC proceeding concerning commercial availability of these "navigation devices." An appeal under this case was decided in favor of the government. We decided not to seek Supreme Court review. Although these specific FCC and judicial proceedings are not a significant threat to our digital and Internet-based products, changes in existing regulations or the issuance of new regulations in the future could adversely affect the market for our products or require us to expend significant management, technical and financial resources to make our products compliant with the new rules.

We face operational and financial risks associated with international operations.

Our international sales and marketing operations are located in nine countries around the world. Revenues from international sales, which include both export sales and sales by international subsidiaries, accounted for about 78.1% of our total revenues in 2001, 66.4% of our total revenues in 2000, and 62.4% of our total revenues in 1999. We expect that international sales will continue to constitute a significant portion of total revenues.

Our operations and the market price of our products may be directly affected by economic and political conditions in the countries where we do business. In addition, we may not be able to maintain or increase the international demand for our products. Additional risks inherent in our international business activities generally include the following:

- currency fluctuations;
- unexpected changes in regulatory requirements, tariffs and other trade barriers;
- costs of localizing products for foreign countries and lack of acceptance of non-local products in foreign countries;
- longer accounts receivable payment cycles;
- difficulties in managing international operations;
- potentially adverse tax consequences, including restrictions on repatriation of earnings; and
- the burdens of complying with a wide variety of foreign laws.

Differing vacation and holiday patterns in other countries, particularly in Europe, may also affect the amount of business that we transact in other countries in any given quarter, the timing of our revenues, and our ability to forecast projected operating results for such quarter.

Fluctuations in the value of currencies in which we conduct our business relative to the U.S. dollar could cause currency translation adjustments. The portion of our revenues conducted in currencies other than the U.S. dollar, principally the Japanese yen, was about 5.9% in 2001, 12.1% in 2000 and 10.8% in 1999.

The use of the Euro as the standard currency in participating European countries may also impact our ability to transact sales in U.S. dollars. We have agreed with EBV, our European distributor, that upon notice from EBV, we will sell our products to EBV in Euros rather than U.S. dollars. We do not know

when or if EBV will give such notice. If fewer of our sales in Europe are transacted in U.S. dollars, we may experience an increase in currency translation adjustments, particularly as a result of general economic conditions in Europe as a whole. We do not currently engage in currency hedging transactions or otherwise cover our foreign currency exposure.

Our existing stockholders control a significant percentage of our stock, which will limit other stockholders' ability to influence corporate matters.

As of February 28, 2002, our directors and executive officers, together with certain entities affiliated with them, beneficially owned 36.1% of our outstanding stock.

Under the stock purchase agreement with ENEL, which transaction was completed September 11, 2000, ENEL purchased 3 million newly issued shares of our common stock and was granted the right to nominate a director to our Board of Directors. As a condition to the closing of the stock purchase agreement, our directors and our chief financial officer agreed to enter into a voting agreement with ENEL in which each of them agreed to vote the shares of our company's common stock that they beneficially owned or controlled in favor of ENEL's nominee to our Board of Directors. In addition, under the terms of the stock purchase agreement, ENEL has agreed to (i) vote (and cause any of its affiliates that own shares of our common stock to vote) all of its shares in favor of the slate of director nominees recommended by the Board of Directors, and (ii) vote (and endeavor to cause any of its affiliates that own shares of our common stock to vote) a number of shares equal to at least that percentage of shares voted by all other stockholders for or against any specified matter, as recommended by the Board of Directors. The specified matters are the election of accountants, the approval of company option plans, and any proposal by any of our stockholders (unless the proposal could be prejudicial to ENEL or the required voting would interfere with ENEL's fiduciary duties to its own shareholders).

As a result, our directors and executive officers, together with certain entities affiliated with them, may be able to control substantially all matters requiring approval by our stockholders, including the election of all directors and approval of certain other corporate matters.

Potential conflicts of interest could limit our ability to act on opportunities that are adverse to a significant stockholder or its affiliates.

From time to time, we may enter into a material contract with a person or company that owns a significant amount of our company's stock. As circumstances change, we may develop conflicting priorities or other conflicts of interest with the significant stockholder with regard to the contract, or the significant stockholder may exert or attempt to exert a significant degree of influence over our management and affairs. The significant stockholder might exert or attempt to exert this influence in its capacity as a significant stockholder or, if the significant stockholder has a representative on our board of directors, through that board member.

For example, we have entered into the Contatore Elettronico project with an affiliate of ENEL. ENEL currently owns 3.0 million shares of our common stock, representing approximately 7.7% of our outstanding common stock. ENEL also has the right to nominate a member of our board of directors as long as ENEL owns at least 2.0 million shares of our common stock. A representative of ENEL has served on our board of directors since September 2000. To date, ENEL's representative on our board has abstained from resolutions on any matter relating to ENEL. A member of our board of directors who is also an officer of or is otherwise affiliated with ENEL may decline to take action in a manner that might be favorable to us but adverse to ENEL. Conflicts that could arise might concern the Contatore Elettronico project with ENEL and other matters where ENEL's interest may not always coincide with our interests or the interests of our other stockholders. Any of those conflicts could affect our ability to complete the Contatore Elettronico project on a timely basis, could increase our expenses or reduce our profits in connection with the project, could affect our ability to obtain approval for or complete other projects or plans that are in conflict with ENEL's goals, and could otherwise significantly and adversely affect our financial condition and results of operations.

We rely on a continuous power supply to conduct our operations, and if California's recent energy crisis reoccurs, our operations could be disrupted and our expenses could increase.

California recently experienced an energy crisis due to an acute power shortage, during which power reserves for the state of California fell below certain critical levels. As a result, California has on some occasions implemented rolling blackouts throughout the state. If an energy crisis reoccurs, we do not have backup generators or alternate sources of power in the event of an extended blackout, and our current insurance does not provide coverage for any damages we or our customers might suffer as a result of any interruption in our power supply. If extended blackouts interrupted our power supply, we would be temporarily unable to continue operations at our California facilities. Any such interruption in our ability to continue operations at our facilities could damage our reputation, harm our ability to retain existing customers and to obtain new customers, and could result in lost revenue, any of which could substantially harm our business and results of operations.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk. Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio. All investments are in high-credit quality issuances and, by our company policy, are limited in the amount of credit exposure to any one issuer. We ensure the safety and preservation of the invested principal funds by investing in safe and high-credit quality securities, which include only marketable securities with active secondary or resale markets to ensure portfolio liquidity.

The table below presents principal amounts and related weighted average interest rates for our investment portfolio at December 31, 2001. According to our policy, all investments mature in two years or less. (in thousands, except average interest rates)

	<u>Carrying Amount</u>	<u>Average Interest Rate</u>
Cash Equivalents:		
U.S. corporate securities	<u>\$ 20,742</u>	<u>1.92%</u>
Total cash equivalents	<u>20,742</u>	<u>1.92%</u>
Short-term Investments:		
U.S. corporate securities	74,566	4.25%
U.S. government securities	<u>13,855</u>	<u>2.85%</u>
Total short-term investments	<u>88,421</u>	<u>3.94%</u>
Total investment securities	<u>\$109,163</u>	<u>3.55%</u>

Foreign Currency Exchange Risk. We transact business in various foreign countries. Our primary foreign currency cash flows are in Japan and Western Europe. Currently, we do not employ a foreign currency hedge program utilizing foreign currency exchange contracts as the foreign currency transactions and risks to date have not been significant. We have agreed with EBV, our European distributor, that upon notice from EBV, we will sell our products to EBV in Euros rather than in U.S. dollars. We do not know when, or if, EBV will give such notice.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The Financial Statements and Supplementary Data required by this item are set forth at the pages indicated at Item 14(a).

ITEM 9. CHANGE IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

We refer you to our current report on Form 8-K dated as of March 20, 2002, which disclosed our dismissal of Arthur Andersen LLP as our independent accountants and the engagement of KPMG LLP to perform the annual audit of our financial statements for the fiscal year ending December 31, 2002.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

We refer you to the information regarding Directors appearing under the caption "Election of Directors" and "Other Information — Compliance with Section 16 (a) of the Securities Exchange Act of 1934" in our proxy statement to be filed with the Securities and Exchange Commission within 120 days after the end of our fiscal year ended December 31, 2001, which information is incorporated herein by reference; and to the information under the heading "Executive Officers of the Registrant" in Part I hereof.

ITEM 11. EXECUTIVE COMPENSATION

We refer you to the information under the caption "Executive Compensation" in our proxy statement to be filed with the Securities Exchange Commission within 120 days after the end of our fiscal year ended December 31, 2001, which we incorporate herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

We refer you to the information appearing under the caption "Share Ownership by Principal Stockholders and Management" in our proxy statement to be filed with the Securities Exchange Commission within 120 days after the end of the our fiscal year ended December 31, 2001, which we incorporate herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

We refer you to the information appearing under the caption "Other Information — Certain Transactions" in our proxy statement to be filed with the Securities Exchange Commission within 120 days after the end of our fiscal year ended December 31, 2001, which we incorporate herein by reference.

PART IV

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

(a) The following documents are filed as part of this Form:

1. Financial Statements

	<u>Page</u>
Report of Independent Public Accountants	41
Consolidated Balance Sheets	42
Consolidated Statements of Operations	43
Consolidated Statements of Stockholders' Equity	44
Consolidated Statements of Comprehensive Loss	44
Consolidated Statements of Cash Flows	45
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2. Financial Statement Schedules

Schedule II Valuation and Qualifying Accounts	60
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All other schedules have been omitted because they are not applicable or the required information is included in the Consolidated Financial Statements or Notes thereto.

3. Exhibits

<u>Exhibit No.</u>	<u>Description of Document</u>
3.2*	Amended and Restated Certificate of Incorporation of Registrant.
3.3*	Amended and Restated Bylaws of Registrant.
4.1*	Form of Registrant's Common Stock Certificate.
4.2*	Second Amended and Restated Modification Agreement dated May 15, 1997.
10.1*	Form of Indemnification Agreement entered into by Registrant with each of its directors and executive officers.
10.2*	1997 Stock Plan and forms of related agreements.
10.3*	1988 Stock Option Plan and forms of related agreements.
10.4*	Second Amended and Restated Modification Agreement dated May 15, 1997 (included in Exhibit 4.2).
10.5*	Form of International Distributor Agreement.
10.6*	Form of OEM License Agreement.
10.7*	Form of Software License Agreement.
10.8*	International Distributor Agreement between the Company and EBV Elektronik GmbH as of December 1, 1997.
10.9*	1998 Director Option Plan.
21.1*	Subsidiaries of the Registrant.
23.1	Consent of Arthur Andersen LLP.
24.1*	Power of Attorney.
99.1	Company Letter of Representations regarding Arthur Andersen LLP

* Previously filed.

(b) Reports on Form 8-K

None.

REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To Echelon Corporation:

We have audited the accompanying consolidated balance sheets of Echelon Corporation (a Delaware corporation) and subsidiaries as of December 31, 2001 and 2000, and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 31, 2001. These financial statements and the schedule referred to below are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Echelon Corporation and subsidiaries as of December 31, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001 in conformity with accounting principles generally accepted in the United States of America.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The schedule listed under Item 14(a) is presented for purposes of complying with the Securities and Exchange Commission's rules and is not part of the basic financial statements. This schedule has been subjected to the auditing procedures applied in our audits of the basic financial statements and, in our opinion, fairly states in all material respects the financial data required to be set forth therein in relation to the basic financial statements taken as a whole.

ARTHUR ANDERSEN LLP

San Jose, California
January 15, 2002

ECHELON CORPORATION
CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share amounts)

	As of December 31,	
	2001	2000
ASSETS		
Current Assets:		
Cash and cash equivalents	\$ 23,232	\$117,664
Short-term investments	88,421	33,129
Accounts receivable, net of allowances of \$1,491 in 2001 and \$1,259 in 2000	29,113	9,548
Inventories	10,316	5,745
Other current assets	11,556	5,203
Total current assets	<u>162,638</u>	<u>171,289</u>
Property and Equipment:		
Computer and other equipment	12,036	9,656
Furniture and fixtures	2,426	1,523
Leasehold improvements	10,840	856
	25,302	12,035
Less: Accumulated depreciation and amortization	<u>(8,822)</u>	<u>(8,950)</u>
Net property and equipment	16,480	3,085
Other long-term assets	6,536	1,302
	<u>\$185,654</u>	<u>\$175,676</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable	\$ 7,409	\$ 4,200
Accrued liabilities	2,426	1,606
Deferred revenues	1,055	1,106
Total current liabilities	<u>10,890</u>	<u>6,912</u>
Long-Term Liabilities:		
Deferred rent, net of current portion	47	3
Total long-term liabilities	<u>47</u>	<u>3</u>
Commitments and Contingencies (Note 4)		
Stockholders' Equity:		
Convertible preferred stock, \$.01 par value:		
Authorized—5,000,000 shares; none outstanding		
Common stock, \$.01 par value:		
Authorized—100,000,000 shares		
Outstanding—38,753,360 shares in 2001 and 38,049,696 shares in 2000	390	380
Additional paid-in capital	265,787	263,248
Treasury stock	(3,191)	—
Deferred compensation	(31)	(215)
Accumulated other comprehensive income/(loss)	38	(330)
Accumulated deficit	<u>(88,276)</u>	<u>(94,322)</u>
Total stockholders' equity	<u>174,717</u>	<u>168,761</u>
	<u>\$185,654</u>	<u>\$175,676</u>

The accompanying notes are an integral part of these consolidated financial statements.

ECHELON CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share amounts)

	For the Year Ended December 31,		
	2001	2000	1999
Revenues:			
Product	\$74,777	\$47,261	\$37,546
Service	1,812	2,038	2,220
Total revenues	<u>76,589</u>	<u>49,299</u>	<u>39,766</u>
Cost of Revenues:			
Cost of product	34,842	18,225	14,297
Cost of service	2,347	2,017	1,529
Total cost of revenues	<u>37,189</u>	<u>20,242</u>	<u>15,826</u>
Gross profit	<u>39,400</u>	<u>29,057</u>	<u>23,940</u>
Operating Expenses:			
Product development	17,028	11,159	9,214
Sales and marketing	15,787	15,949	15,152
General and administrative	6,942	5,787	4,101
Non-recurring charge/(benefit)	—	(48)	549
Total operating expenses	<u>39,757</u>	<u>32,847</u>	<u>29,016</u>
Loss from operations	(357)	(3,790)	(5,076)
Interest and other income, net	6,655	4,019	1,355
Income/(loss) before provision for income taxes ...	6,298	229	(3,721)
Provision for Income Taxes	252	145	186
Net income/(loss)	<u>\$ 6,046</u>	<u>\$ 84</u>	<u>\$ (3,907)</u>
Income/(loss) per share:			
Basic	<u>\$ 0.16</u>	<u>\$ 0.00</u>	<u>\$ (0.12)</u>
Diluted	<u>\$ 0.15</u>	<u>\$ 0.00</u>	<u>\$ (0.12)</u>
Shares used in per share calculation:			
Basic	<u>38,443</u>	<u>35,222</u>	<u>32,910</u>
Diluted	<u>41,141</u>	<u>39,734</u>	<u>32,910</u>

The accompanying notes are an integral part of these consolidated financial statements.

ECHELON CORPORATION
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands)

	Common Stock		Treasury Stock		Additional	Deferred	Accumulated		
	Shares	Amount	Shares	Amount	Paid-In	Compensation	Other Comprehensive	Accumulated	Total
					Capital		Income/(Loss)	Deficit	
Balance at December 31, 1998	32,543	\$325	—	\$ —	\$126,844	\$(597)	\$(287)	\$(90,499)	\$ 35,786
Exercise of stock options and warrants, net of repurchases	697	7	—	—	769	—	—	—	776
Amortization of deferred compensation	—	—	—	—	—	198	—	—	198
Foreign currency translation adjustment	—	—	—	—	—	—	133	—	133
Unrealized holding loss on available-for-sale securities	—	—	—	—	—	—	(48)	—	(48)
Net loss	—	—	—	—	—	—	—	(3,907)	(3,907)
Balance at December 31, 1999	33,240	332	—	—	127,613	(399)	(202)	(94,406)	32,938
Exercise of stock options and warrants, net of repurchases	1,810	18	—	—	4,929	—	—	—	4,947
Issuance of common stock in connection with sale of shares to ENEL, net issuance costs of \$191	3,000	30	—	—	130,706	—	—	—	130,736
Amortization of deferred compensation	—	—	—	—	—	184	—	—	184
Foreign currency translation adjustment	—	—	—	—	—	—	(161)	—	(161)
Unrealized holding gain on available-for-sale securities	—	—	—	—	—	—	33	—	33
Net income	—	—	—	—	—	—	—	84	84
Balance at December 31, 2000	38,050	380	—	—	263,248	(215)	(330)	(94,322)	168,761
Exercise of stock options and warrants, net of repurchases	968	10	—	—	2,539	—	—	—	2,549
Repurchase of stock	—	—	(265)	(3,191)	—	—	—	—	(3,191)
Amortization of deferred compensation	—	—	—	—	—	184	—	—	184
Foreign currency translation adjustment	—	—	—	—	—	—	(327)	—	(327)
Unrealized holding gain on available-for-sale securities	—	—	—	—	—	—	695	—	695
Net income	—	—	—	—	—	—	—	6,046	6,046
Balance at December 31, 2001	<u>39,018</u>	<u>\$390</u>	<u>(265)</u>	<u>\$(3,191)</u>	<u>\$265,787</u>	<u>\$ (31)</u>	<u>\$ 38</u>	<u>\$(88,276)</u>	<u>\$174,717</u>

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME/(LOSS)
(in thousands)

	For the Year Ended December 31,		
	2001	2000	1999
Net income/(loss)	\$6,046	\$ 84	\$(3,907)
Other comprehensive income/(loss), net of tax:			
Foreign currency translation adjustment, net of tax	(327)	(161)	133
Unrealized holding gain/(loss) on available-for-sale securities, net of tax	695	33	(48)
Comprehensive income/(loss)	<u>\$6,414</u>	<u>\$ (44)</u>	<u>\$(3,822)</u>

The accompanying notes are an integral part of these consolidated financial statements.

ECHELON CORPORATION
CONSOLIDATED STATEMENT OF CASH FLOWS
(in thousands)

	For the Year Ended December 31,		
	2001	2000	1999
Cash Flows from Operating Activities:			
Net income/(loss)	\$ 6,046	\$ 84	\$ (3,907)
Adjustments to reconcile net income/(loss) to net cash used in operating activities:			
Depreciation and amortization	2,322	1,239	1,148
Provision for doubtful accounts	210	25	(105)
Deferred compensation expense	184	184	198
Loss on disposal of fixed assets	74	40	28
Change in operating assets and liabilities:			
Accounts receivable	(19,775)	(2,270)	(2,639)
Inventories	(4,571)	(2,586)	205
Other current assets	(6,353)	(2,906)	(127)
Accounts payable	3,209	1,614	799
Accrued liabilities	820	(934)	473
Deferred revenues	(51)	(541)	(587)
Deferred rent	44	3	(76)
Net cash used in operating activities	<u>(17,841)</u>	<u>(6,048)</u>	<u>(4,590)</u>
Cash Flows from Investing Activities:			
Purchase of available-for-sale short-term investments ...	(79,454)	(32,348)	(9,027)
Proceeds from sales and maturities of available-for-sale short-term investments	24,162	14,188	11,560
Unrealized gains (losses) on securities	695	33	(48)
Changes in other long-term assets	(5,769)	(1,302)	—
Capital expenditures	<u>(15,256)</u>	<u>(1,716)</u>	<u>(1,020)</u>
Net cash provided by (used in) investing activities	<u>(75,622)</u>	<u>(21,145)</u>	<u>1,465</u>
Cash Flows from Financing Activities:			
Repurchase of common stock	(3,191)	—	—
Proceeds from issuance of common stock, net of offering costs	2,549	135,683	776
Net cash provided by (used in) financing activities	<u>(642)</u>	<u>135,683</u>	<u>776</u>
Effect of Exchange Rates on Cash	<u>(327)</u>	<u>(162)</u>	<u>133</u>
Net Increase (Decrease) in Cash and Cash Equivalents:	(94,432)	108,328	(2,216)
Cash and Cash Equivalents:			
Beginning of year	117,664	9,336	11,552
End of year	<u>\$ 23,232</u>	<u>\$117,664</u>	<u>\$ 9,336</u>
Supplemental Disclosures of Cash Flow Information:			
Cash paid for income taxes	<u>\$ 130</u>	<u>\$ 145</u>	<u>\$ 174</u>

The accompanying notes are an integral part of these consolidated financial statements.

ECHELON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2001

1. Organization of the Company:

Echelon Corporation (the "Company") was incorporated in California in February 1988 and was later reincorporated in Delaware in January 1989. The Company develops, markets and supports a wide range of hardware and software products and services that enable OEMs and systems integrators to design and implement open, interoperable, distributed control networks. The Company's products are based on LONWORKS networking technology, an open standard for interoperable networked control developed by the Company. In a LONWORKS control network, intelligent control devices, called nodes, communicate using the Company's LONWORKS protocol. The Company sells its products and services around the world to the building, industrial, transportation, utility/home and other automation markets.

The Company is subject to certain risks and challenges including, among others: reliance on significant customers; history of losses; fluctuation in operating results; undetermined market acceptance of its products and interoperability in general; dependence on OEMs and distribution channels; dependence on key manufacturers and suppliers; competition; volatility of stock price; dependence on key personnel; new products and rapid technological change; voluntary standards; lengthy sales cycle; changes in the markets in which it operates; risks of product defects or misuse; limited protection of intellectual property rights; regulatory actions; international operations and currency fluctuations; control by existing stockholders; conflicts of interest with significant stockholders; and susceptibility to power outages.

2. Summary of Significant Accounting Policies:

Principles of Consolidation

The Company's consolidated financial statements reflect operations of the Company and its wholly owned subsidiaries. All significant intercompany transactions and balances have been eliminated.

Use of Estimates in the Preparation of Financial Statements

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Revenue Recognition and Product Warranty

The Company's revenues are derived from the sale and license of its products and to a lesser extent, from fees associated with training, technical support, and custom software design services offered to its customers. Product revenues consist of revenues from hardware sales and software licensing arrangements. Revenues from software licensing arrangements accounted for approximately 6.6% of total revenues in 2001, 9.8% of total revenues in 2000, and 9.6% of total revenues in 1999. Service revenues consist of product support (including software post-contract support services), training, and custom software development services.

The Company recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable, collectibility is probable and there are no post-delivery obligations. For hardware sales, including sales to distributors, these criteria are generally met at the time of shipment to the customer. For software licenses, these criteria are generally met upon shipment to the final end-user. The Company provides limited post-contract customer support (PCS), consisting primarily of technical support and "bug" fixes. In accordance with Statement of Position (SOP) 97-2, "Software Revenue Recognition," revenue earned on software arrangements involving multiple elements is

allocated to each element based upon the relative fair values of the elements. Revenue for the software license element is recognized at the time of delivery of the application product to the end-user. The Company uses the residual method to recognize revenue when a license agreement includes one or more elements to be delivered at a future date if evidence of the fair value of all undelivered elements exists. If an undelivered element of the arrangement exists under the license arrangement, revenue is deferred based on vendor-specific objective evidence of the fair value of the undelivered element. If vendor-specific objective evidence of fair value does not exist for all undelivered elements, all revenue is deferred until sufficient evidence exists or all elements have been delivered. Revenue for the PCS element, the total amount of which is determined from the stand-alone price of providing this service, is recognized over the service period. The costs of providing these services are expensed when incurred. Estimated reserves for warranty costs as well as reserves for sales returns and allowances related to anticipated return of products sold to distributors with limited rights of return, which are not material to the consolidated financial statements, are recorded at the time of shipment. The Company generally has not had any significant post-delivery obligations associated with the sale of its products. Service revenue is recognized as the training services are performed, or ratably over the term of the support period. In the case of custom software development services, revenue is recognized when the customer accepts the software.

During 1990, the Company entered into separate licensing agreements with Motorola, Inc. ("Motorola"), which expired in January 2001, and Toshiba Corporation ("Toshiba"), which expires in January 2010, unless renewed. In 1999, the Company signed a similar licensing agreement with Cypress Semiconductor, Inc. ("Cypress"), which expires in 2009, unless otherwise renewed. In January 2001, Motorola announced that it had discontinued its distribution of Neuron Chips. Motorola was a significant stockholder and was a related party to the Company due to its representation on the Company's Board of Directors during 1999 and part of 1998. The agreements provide, among other things, for the worldwide right to manufacture and distribute products subject to the licensed technology and require the Company to provide support and unspecified updates to the licensed technology over the terms of the agreements, including support relating to compatibility testing and qualification of updates to the licensed technology. The Toshiba and Motorola agreements also provide for nonrefundable advance royalty payments aggregating \$6,750,000, which were received by the Company in 1990 and 1991. These payments were recognized as revenue ratably over the ten-year royalty period due to the ongoing obligation to provide support and unspecified updates to the licensed technology. As of December 31, 1999, the Company deferred \$675,000 of royalty payments that were recognized in 2000. Product revenues for the years ended December 31, 2000 and 1999 each include \$675,000 related to these advance royalty payments. Any additional royalties reported by Motorola, Toshiba, or Cypress are recognized as revenue upon receipt of such royalties by the Company. Motorola accounted for about \$18,000, \$359,000, and \$416,000 of total revenues for the years ended December 31, 2001, 2000, and 1999, respectively.

Cash and Cash Equivalents

The Company considers bank deposits, money market investments and all debt and equity securities with an original maturity of three months or less as cash and cash equivalents.

Short-Term Investments

The Company classifies its investments in debt and equity securities as available-for-sale in accordance with Statement of Financial Accounting Standards ("SFAS") No. 115, "Accounting for Certain Investments in Debt and Equity Securities." Securities classified as available-for-sale are reported at fair market value with the related unrealized holding gains and losses, net of tax, being included in accumulated other comprehensive income (loss) in the accompanying consolidated statements of stockholders' equity.

As of December 31, 2001 and 2000, the Company's available-for-sale securities had contractual maturities of three to twenty-four months, and from three to twenty-two months, respectively, and an average maturity of eight months and eleven months, respectively. The fair value of available-for-sale securities was determined based on quoted market prices at the reporting date for those instruments. The

amortized cost basis, aggregate fair value and gross unrealized holding gains and losses by major security type were as follows (in thousands):

	December 31,					
	2001			2000		
	Amortized Cost	Aggregate Fair Value	Unrealized Holding Gains/(Losses)	Amortized Cost	Aggregate Fair Value	Unrealized Holding Gains/(Losses)
U.S. corporate securities:						
Commercial paper	\$ 5,793	\$ 5,794	\$ 1	\$17,704	\$17,699	\$(5)
Corporate notes and bonds	68,049	68,772	723	15,009	15,048	39
	73,842	74,566	724	32,713	32,747	34
U.S. government securities	13,871	13,855	(16)	381	382	1
Total investments in debt and equity securities	<u>\$87,713</u>	<u>\$88,421</u>	<u>\$708</u>	<u>\$33,094</u>	<u>\$33,129</u>	<u>\$35</u>

Inventories

Inventories are stated at the lower of cost (first-in, first-out) or market and include material, labor and manufacturing overhead. When required, provisions are made to reduce excess and obsolete inventories to their estimated net realizable value. Inventories consist of the following (in thousands):

	December 31,	
	2001	2000
Purchased materials	\$ 4,473	\$3,599
Work-in-process	57	10
Finished goods	5,786	2,136
	<u>\$10,316</u>	<u>\$5,745</u>

Property and Equipment

Property and equipment are stated at cost. Depreciation is provided using the straight-line method over the estimated useful lives of two to five years for computer and other equipment and furniture and fixtures. Leasehold improvements are amortized over the shorter of the remaining lease term or the estimated useful life of the improvements using the straight-line method.

Software Development Costs

The Company capitalizes eligible computer software development costs upon the establishment of technological feasibility, which the Company has defined as completion of a working model. For the years ended December 31, 2001, 2000 and 1999, costs that were eligible for capitalization were insignificant and, thus, the Company has charged all software development costs to product development expense in the accompanying consolidated statements of operations.

Accrued Liabilities

Accrued liabilities consisted of the following (in thousands):

	December 31,	
	2001	2000
Accrued payroll and related costs	\$1,778	\$1,171
Accrued marketing costs	390	367
Other accrued liabilities	258	68
	<u>\$2,426</u>	<u>\$1,606</u>

Non-recurring Charge/(Benefit)

In the fourth quarter of 1999, the Company's Board of Directors approved a relocation plan to exit its previous Palo Alto, California leased facilities and relocate to a new leased facility in San Jose, California. During the first and second quarters of 2000, the Company moved from its Palo Alto location to a temporary headquarters facility in Sunnyvale, California, where it remained until the fourth quarter of 2001. In October 2001, the Company relocated to its new corporate headquarters in San Jose. As a result of vacating the Palo Alto facility, the Company recorded \$549,000, which was charged as an expense in 1999 and was paid over the remaining lease term through June 30, 2000. In the second quarter of 2000, the Company recorded a reversal of the excess of the estimate over the actual expenditures for the non-recurring charge of \$48,000.

Foreign Currency Translation

The functional currency of the Company's subsidiaries is the local currency. Accordingly, all assets and liabilities are translated into U.S. dollars at the current exchange rate as of the applicable balance sheet date. Revenues and expenses are translated at the average exchange rate prevailing during the period. Gains and losses resulting from the translation of the financial statements are included in accumulated other comprehensive income (loss) in the accompanying consolidated statements of stockholders' equity. Currently, the Company does not employ a foreign currency hedge program utilizing foreign currency exchange contracts as the foreign currency transactions and risks to date have not been significant.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of temporary cash investments and trade receivables. The Company has cash investment policies that limit the amount of credit exposure to any one financial institution and restrict placement of these investments to financial institutions evaluated as highly creditworthy. With the exception of amounts owed the Company on sales made to ENEL and its designated manufacturers, concentrations of credit risk with respect to trade receivables are limited due to the Company's large number of customers and their dispersion across many different industries and geographies. With respect to these trade receivables, the Company performs ongoing credit evaluations of its customers' financial condition. Additionally, the Company establishes an allowance for doubtful accounts and sales return allowances based upon factors surrounding the credit risk of specific customers, historical trends and other available information. As of December 31, 2001 and 2000, about 75.0% and 7.0% of the total accounts receivable balance, respectively, were due from ENEL and its designated manufacturers. As of December 31, 2001 and 2000, about 3% and 22% of the total accounts receivable balance, respectively, were due from one of the Company's main distributors.

Computation of Basic and Diluted Net Income/(Loss) Per Share and Pro Forma Basic Net Loss Per Share

Net income/(loss) per share has been calculated under SFAS No. 128, "Earnings per Share." SFAS No. 128 requires companies to compute earnings per share under two different methods (basic and diluted). Basic net income/(loss) per share is calculated by dividing net income/(loss) by the weighted average shares of common stock outstanding during the period. Diluted net income/(loss) per share is calculated by adjusting the weighted average number of outstanding shares assuming conversion of all potentially dilutive stock options and warrants under the treasury stock method.

The following is a reconciliation of the numerators and denominators of the basic and diluted net income per share computations for the years ended December 31, 2001 and 2000 (in thousands):

	Year Ended December 31, 2001	Year Ended December 31, 2000
Net income/(loss) (Numerator):		
Net income/(loss), basic & diluted.....	<u>\$ 6,046</u>	<u>\$ 84</u>
Shares (Denominator):		
Weighted average common shares outstanding	38,500	35,426
Weighted average common shares outstanding subject to repurchase ..	<u>(57)</u>	<u>(204)</u>
Shares used in basic computation	38,443	35,222
Weighted average common shares outstanding subject to repurchase ..	57	204
Common shares issuable upon exercise of stock options (treasury stock method)	2,398	4,010
Common shares issuable upon exercise of warrants (treasury stock method)	250	305
Average unamortized deferred compensation	<u>(7)</u>	<u>(7)</u>
Shares used in diluted computation	<u>41,141</u>	<u>39,734</u>
Net income/(loss) per share:		
Basic	<u>\$ 0.16</u>	<u>\$ 0.00</u>
Diluted	<u>\$ 0.15</u>	<u>\$ 0.00</u>

For the years ended December 31, 2001 and December 31, 2000, 2,097,422 and 216,262 stock options, respectively, were not included in the computation of diluted earnings per share because the options' exercise price was greater than the average market price of the common shares and therefore, the effect would be anti-dilutive.

For the year ended December 31, 1999, no diluted net loss per share calculation was performed as the inclusion of potentially dilutive stock options and warrants of 3,324,285 would be anti-dilutive.

Pro forma basic net loss per share has been calculated assuming the conversion of the outstanding preferred stock into an equivalent number of shares of common stock, as if the shares had been converted on the dates of their issuance.

Comprehensive Income (loss)

SFAS No. 130 "Reporting Comprehensive Income" establishes standards for reporting and display of comprehensive income (loss) and its components. SFAS No. 130 requires companies to report a "comprehensive income (loss)" that includes unrealized holding gains and losses and other items that have previously been excluded from net income/(loss) and reflected instead in stockholders' equity. Comprehensive income (loss) for the Company consists of net loss plus the effect of unrealized holding gains or losses on investments classified as available-for-sale and foreign currency translation adjustments. The accumulated balances for each component of the accumulated other comprehensive income (loss), net of tax, are as follows (in thousands):

	December 31,	
	2001	2000
Unrealized holding gain on available-for-sale securities	\$ 707	\$ 12
Cumulative translation adjustment	<u>(669)</u>	<u>(342)</u>
	<u>\$ 38</u>	<u>\$(330)</u>

New Accounting Pronouncements

In July 2001, the Financial Accounting Standards Board issued SFAS No. 141 ("SFAS 141"), "Business Combinations," which supersedes Accounting Principles Board ("APB") Opinion No. 16,

"Business Combinations". SFAS 141 eliminates the pooling-of-interests method of accounting for business combinations and modifies the application of the purchase accounting method. The elimination of the pooling-of-interest method is effective for transactions initiated after September 30, 2001. The remaining provisions of SFAS 141 will be effective for transactions accounted for using the purchase method that are completed after September 30, 2001. We believe that the adoption of this Statement will not have a material impact on our financial position, results of operations, or cash flows.

In July 2001, the FASB also issued SFAS No. 142 ("SFAS 142"), "Goodwill and Intangible Assets," which supersedes APB Opinion No. 17, "Intangible Assets". Under the new Statement, goodwill and intangible assets with indefinite lives acquired on or after June 29, 2001 are not amortized, but instead are tested for impairment annually, primarily using the fair value approach, when there is an impairment indicator. In addition, SFAS 142 provides that other intangible assets will continue to be valued and amortized over their estimated lives; in-process research and development will continue to be written off immediately; all acquired goodwill will be assigned to reporting units for purposes of impairment testing and segment reporting; and, effective January 1, 2002, goodwill and intangible assets with indefinite lives acquired before June 29, 2001 will no longer be subject to amortization, but will instead be subject to impairment tests in accordance with the new Statement.

Upon adoption of SFAS 142, on January 1, 2002, we will no longer amortize goodwill related to the acquisition of ARIGO (see Note 8), thereby eliminating annual goodwill amortization of approximately \$360,000 based on anticipated amortization for 2002. Goodwill amortization for the year ended December 31, 2001 was approximately \$289,000. As of December 31, 2001, the net goodwill balance is \$1.4 million and is included in other long-term assets on the accompanying balance sheet.

In October 2001, the FASB issued SFAS No. 144 ("SFAS 144"), "Accounting for the Impairment or Disposal of Long-Lived Assets". SFAS 144 supercedes SFAS No. 121 by requiring that one accounting model be used for long-lived assets to be disposed of by sale, whether previously held and used or newly acquired, and by broadening the presentation of discontinued operations to include more disposal transactions. SFAS 144 will be effective for fiscal years beginning after December 15, 2001. We believe that the adoption of this Statement will not have a material impact on our financial position, results of operations, or cash flows.

Reclassifications

Certain reclassifications have been made to the prior year amounts to conform with the fiscal year 2001 presentation.

3. Segment Disclosure:

In 1998, the Company adopted SFAS No. 131, "Disclosures about Segments of an Enterprise and Related Information." Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing business performance. The Company's chief operating decision-making group is the Executive Staff, which is comprised of the Chief Executive Officer, the Chief Operating Officer, and their direct reports. SFAS No. 131 also requires disclosures about products and services, geographic areas and major customers. The adoption of SFAS No. 131 did not affect results of operations or the financial position of the Company but did affect the disclosure of segment information.

The Company operates in one principal industry segment: the design, manufacture and sale of products for the controls network industry, and markets its products primarily to the building automation, industrial automation, transportation, and utility/home automation markets. The Company's products are marketed under the LONWORKS® brand name, which provides the infrastructure, and support required to implement and deploy open, interoperable, control network solutions. All of the Company's products either incorporate or operate with the Neuron® Chip and/or the LONWORKS protocol. The Company also provides services to customers which consist of technical support and training courses covering its LONWORKS network technology and products. The Company offers about 90 products and services that

together constitute the LONWORKS system. Any given customer purchases a small subset of such products and services that are appropriate for that customer's application.

The Company manages its business primarily on a geographic basis. The Company's geographic areas are comprised of the Americas, Europe, Middle East and Africa ("EMEA") and Asia Pacific/ Japan ("APJ"). Each geographic area provides products and services as further described in Note 1. The Company evaluates the performance of its geographic areas based on profit or loss from operations. Profit or loss for each geographic area includes sales and marketing expenses and other charges directly attributable to the area and excludes certain expenses that are managed outside the geographic area. Costs excluded from area profit or loss primarily consist of unallocated corporate expenses, comprised of product development costs, corporate marketing costs and other general and administrative expenses, which are separately managed. The Company has no long-lived assets, other than property and equipment and loans to certain key employees. Long-lived assets are attributed to geographic areas based on the country where the assets are located. Long-lived assets of about \$20.2 million were domiciled in the United States as of December 31, 2001, and long-lived assets of about \$4.1 million were domiciled in the United States as of December 31, 2000. Long-lived assets for all other locations are not material to the consolidated financial statements. Assets and the related depreciation and amortization are not being reported by geography because the information is not reviewed by the Executive Staff to make decisions about resources to be allocated to the geographic areas based on their performance.

In North America, the Company sells its products through a direct sales organization. Outside North America, direct sales, applications engineering and customer support are conducted through the Company's operations in Europe ("EMEA") and Asia ("APJ"). Revenues are attributed to geographic areas based on the country where the customer is domiciled. Summary information by geography for the years ended December 31, 2001, 2000 and 1999 is as follows (in thousands):

	Year Ended December 31,		
	2001	2000	1999
Revenues from customers:			
Americas	\$ 16,767	\$ 15,505	\$ 14,109
EMEA	42,608	23,265	17,991
APJ	17,206	9,477	6,820
Unallocated	8	1,052	846
Total	<u>\$ 76,589</u>	<u>\$ 49,299</u>	<u>\$ 39,766</u>
Gross profit:			
Americas	\$ 10,693	\$ 9,454	\$ 8,985
EMEA	19,349	12,735	9,862
APJ	9,350	5,816	4,247
Unallocated	8	1,052	846
Total	<u>\$ 39,400</u>	<u>\$ 29,057</u>	<u>\$ 23,940</u>
Income (loss) from operations:			
Americas	\$ 6,976	\$ 5,586	\$ 5,166
EMEA	16,128	9,322	6,569
APJ	5,613	1,723	923
Unallocated	(29,074)	(20,421)	(17,734)
Total	<u>\$ (357)</u>	<u>\$ (3,790)</u>	<u>\$ (5,076)</u>

Products sold to ENEL and its designated manufacturers accounted for 40.5% of total revenues for the year ended December 31, 2001 and 3.1% for the year ended December 31, 2000. In addition, EBV, the sole independent distributor of the Company's products in Europe since December 1997, accounted for 16.9% of total revenues for 2001, 26.5% of total revenues for 2000 and 27.3% of total revenues for 1999.

4. Commitments and Contingencies:

The Company leases its facilities under operating leases that expire on various dates through 2013. The leases related to the Company's facilities in Palo Alto expired in March and June 2000. The lease related to the temporary facility in Sunnyvale expired in October 2001. In December 1999, the Company entered into a lease agreement with a real estate developer for its new corporate headquarters in San Jose, California. This agreement requires minimum rental payments for ten years totaling approximately \$20.6 million and also required that the Company provide a \$3.0 million security deposit. The Company satisfied the security deposit requirement by causing to have issued a standby letter of credit ("LOC") in July 2000. The LOC is subject to annual renewals and is currently secured by a cash deposit at the bank that issued the LOC.

In October 2000, the Company entered into another lease agreement with the same real estate developer for an additional building at the new headquarter site. Construction on the second building has commenced and is expected to be completed in July 2003. This second lease agreement also requires minimum rental payments for ten years totaling approximately \$23.4 million. Payments under this lease will not begin until the building is completed. In addition, this second lease agreement also required a security deposit of \$5.0 million. The Company satisfied this security deposit requirement by causing to have issued another LOC in October 2001. This LOC is also subject to annual renewals and is currently secured by a cash deposit at the bank that issued it.

As of December 31, 2001, future minimum lease payments under all operating leases were as follows (in thousands):

2002	\$ 2,487
2003	3,287
2004	4,252
2005	4,221
2006	4,196
Thereafter	<u>26,154</u>
Total	<u>\$44,597</u>

Rent expense was \$2,250,214 for 2001, \$1,758,000 for 2000 and \$1,810,000 for 1999. The lease agreements provide for escalating rent payments over the term of the lease. Rent expense under these agreements is recognized on a straight-line basis. As of December 31, 2001, and December 31, 2000, the Company has accrued about \$47,000 and \$3,000, respectively, of deferred rent related to these agreements which is reflected in long-term liabilities in the accompanying consolidated balance sheets.

5. Stockholders' Equity:

Preferred Stock

With the closing of the Company's initial public offering ("IPO") in July 1998, all of the outstanding preferred stock automatically converted into 7,887,381 shares of common stock. Upon conversion of the outstanding preferred stock to common stock, such preferred stock was retired. As of December 31, 2001, the Company was authorized to issue 5,000,000 shares of new \$0.01 par value preferred stock, of which none was outstanding as of December 31, 2001.

Common Stock

As of December 31, 2001, the Company was authorized to issue 100,000,000 shares of \$0.01 par value common stock.

In September 2001, the Company's Board of Directors approved a stock repurchase program which authorizes the Company to repurchase up to 2.0 million shares of the Company's common stock, in accordance with Rule 10b-18 and other applicable laws, rules and regulations. Unless otherwise

terminated by the Board, the program will be in effect for a period of two years from the date of the first purchase under the program. In September 2001, the Company repurchased 265,000 shares under the program at a cost of \$3.2 million. As of December 31, 2001, approximately 1.7 million shares remained available for repurchase under the program.

In June 2000, the Company entered into a stock purchase agreement with ENEL, which was completed on September 11, 2000. Under this agreement, ENEL acquired 3,000,000 newly issued shares of the Company's common stock which generated net proceeds of \$130.7 million.

Warrants

In connection with the issuance of Series E preferred stock in 1997, warrants to purchase an aggregate of 400,000 shares of common stock at a per share exercise price of \$5.00 were issued. At the date of issuance, the fair market value of these warrants was deemed to be immaterial. These warrants are exercisable at any time until their expiration, which is the earlier of May 15, 2002 or a change in control. Each warrant contains a cashless conversion right. As of December 31, 2001, 55,181 of these warrants have been exercised and 344,819 remain outstanding.

1988 Stock Option Plan

During 1988, the Company adopted the 1988 Stock Option Plan (the "1988 Plan") for key employees, officers and directors. Incentive stock options to purchase shares of common stock were granted at not less than 100% of the fair market value and generally have a term of five years from the date of grant, not to exceed ten years. The 1988 Plan also provides for holders of non-qualified stock options to purchase shares at not less than 85% of the fair market value. Options generally vest ratably over four years. Fair market value for these grants was determined by the Board of Directors prior to the stock becoming available on a public market.

The 1988 Plan also allows for the issuance of options which are immediately exercisable through execution of a restricted stock purchase agreement. Shares purchased pursuant to a stock purchase agreement generally vest over four years. In the event of termination of employment, the Company, at its discretion, may repurchase unvested shares at a price equal to the original issue price. In April 1997, the Board of Directors determined that no further options would be granted under the 1988 Plan. As of December 31, 2001, there were no 1988 Plan options outstanding.

1997 Stock Plan

During 1997, the Company adopted the 1997 Stock Plan (the "1997 Plan") for key employees, officers and directors. As of December 31, 2001, a total of 9,260,079 shares of Common Stock are reserved for issuance under the 1997 Plan. This plan includes annual increases on the first day of the Company's fiscal year (beginning in 2000) not to exceed the lesser of (i) 5,000,000 shares or (ii) 5% of the outstanding shares on such date. Incentive stock options to purchase shares of common stock may be granted at not less than 100% of the fair market value. Options granted prior to June 15, 2000 generally have a term of five years from the date of grant, not to exceed ten years. Option granted on or after June 15, 2000 generally have a term of ten years. The exercise price of nonstatutory stock options and stock purchase rights granted under the 1997 Plan is determined by the Administrator, but will also be at least equal to 100% of the fair market value per share of common stock on the grant or issue date, except that up to 10% of the aggregate number of shares reserved for issuance under the 1997 Plan (including shares that have been issued or are issuable in connection with options exercised or granted under the 1997 Plan) may have exercise prices that are from 0% to 100% of the fair market value of the common stock on the date of grant. Options generally vest ratably over four years. Fair market value is determined with reference to the closing price of the common stock as reported on the Nasdaq National Market on the date immediately preceding grant date.

The 1997 Plan also allows for the issuance of options that are immediately exercisable through execution of a restricted stock purchase agreement. Shares purchased pursuant to a stock purchase agreement generally vest ratably over four years. In the event of termination of employment, the Company, at its discretion, may repurchase unvested shares at a price equal to the original issuance price.

1998 Directors Option Plan

Non-employee directors are entitled to participate in the 1998 Director Option Plan (the "Director Plan"). The Director Plan was adopted by the Board of Directors in May 1998 and became effective upon the closing of the stock offering in July 1998. The Director Plan has a term of ten years, unless terminated sooner by the Board. A total of 587,500 shares of Common Stock are currently reserved for issuance under the Director Plan. The plan provides for an increase each year equal to 100,000 shares or such lesser amount as the Board may determine. The plan also provides for the automatic grant of 25,000 shares of common stock (the "First Option") to each non-employee director on the date he or she first becomes a director. Each non-employee director is also automatically granted an option to purchase 10,000 shares (a "Subsequent Option") on the date of the Company's Annual Stockholder Meeting provided that he or she is re-elected to the Board or otherwise remains on the Board, if on such date he or she shall have served on the Board for at least the preceding six months. Each First Option and each Subsequent Option shall have a term of five years and the shares subject to the option shall vest as to 25% of the shares subject to option on each anniversary of the date of grant for Options granted before May 11, 1999 and 100% on the date of grant for options granted on or after May 11, 1999. The exercise price of each First Option and Subsequent Option shall be 100% of the fair market value per share of the common stock, generally determined with reference to the closing price of the common stock as reported on the Nasdaq National Market on the date preceding grant date. During 2001 and 2000, options to purchase an aggregate of 70,000 and 85,000 shares were granted, respectively, under the Director Plan at an exercise price of \$24.82 in 2001 and a range of from \$30.25 to \$41.25 per share in 2000.

In the event of a merger of the Company with or into another corporation or the sale of substantially all of the assets of the Company, each option shall be assumed or an equivalent option may be substituted by the successor corporation. Following such assumption or substitution, if the optionee's status as a director of the successor corporation terminates other than upon a voluntary resignation by the optionee, the option shall become fully exercisable, including as to shares as to which it would not otherwise be exercisable. If the outstanding options are not assumed or substituted, the options shall become fully vested and exercisable. Options granted under the Director Plan must be exercised within three months of the end of the optionee's tenure as a director of the Company, or within twelve months after such director's termination by death or disability, but in no event later than the expiration of the option's five year term; provided, however, that shares subject to an option granted to a director who has served as a director with the Company for at least five years shall become fully vested and exercisable for the remainder of the option's five year term upon such director's termination. No option granted under the Director Plan is transferable by the optionee other than by will or the laws of descent and distribution, and each option is exercisable, during the lifetime of the optionee, only by such optionee.

The following table summarizes option activity under all plans (prices are weighted average prices):

	Year Ended December 31,					
	2001		2000		1999	
	Shares	Price	Shares	Price	Shares	Price
Options outstanding,						
Beginning of year	5,221,149	\$14.31	5,562,341	\$ 4.03	4,585,554	\$2.18
Granted	2,560,225	15.89	1,789,975	33.63	1,843,900	7.50
Cancelled	(244,314)	20.54	(320,905)	9.17	(181,045)	3.16
Exercised	(971,107)	2.55	(1,810,262)	2.73	(686,068)	1.20
Options outstanding,						
End of year	<u>6,565,953</u>	<u>\$16.44</u>	<u>5,221,149</u>	<u>\$14.31</u>	<u>5,562,341</u>	<u>\$4.03</u>
Exercisable, end of year	<u>3,173,175</u>	<u>\$13.52</u>	<u>3,167,535</u>	<u>\$ 4.60</u>	<u>3,977,955</u>	<u>\$3.18</u>

Certain options issued under the 1997 Plan may be exercised any time prior to their expiration. In addition, the Company has the right, upon termination of an option holder's employment or service with the Company, at its discretion, to repurchase any unvested shares issued under the 1997 Plan at the

original purchase price. As of December 31, 2001, 56,684 shares were subject to repurchase by the Company at prices ranging from \$7.00 to \$30.25 per share and a weighted average repurchase price of \$8.93. Of the 3,173,175 options exercisable as of December 31, 2001, 2,562,149 were vested.

In connection with the issuance of stock options during 1998, the Company recorded deferred compensation in the aggregate amount of \$755,000, representing the difference between the deemed fair value of the Company's common stock and the exercise price of the stock options at the date of grant. The Company is amortizing the deferred compensation expense over the shorter of the period in which the employee provides services or the applicable vesting period, which is typically 48 months. For each of the years ended December 31, 2001 and 2000, amortization expense was \$184,000. Deferred compensation is decreased in the period of forfeiture arising from the early termination of an option holder's services.

The Company accounts for the Plans under APB Opinion No. 25, "Accounting for Stock Issued to Employees." Had compensation expense for the Plans been determined consistent with SFAS No. 123, "Accounting for Stock-Based Compensation," the Company's net income/(loss) and basic and diluted net income/(loss) per share would have been (decreased)/increased to the following pro forma amounts (in thousands, except per share amounts):

	Year Ended December 31,		
	2001	2000	1999
Net income/(loss):			
As reported.....	\$ 6,046	\$ 84	\$(3,907)
Pro forma	(23,589)	(22,275)	(9,052)
Basic and diluted net income/(loss) per share:			
As reported basic.....	\$ 0.16	\$ 0.00	\$ (0.12)
As reported diluted.....	0.15	0.00	(0.12)
Pro forma basic	(0.61)	(0.63)	(0.28)
Pro forma diluted	(0.61)	(0.63)	(0.28)

The weighted-average grant date fair value of options granted during 2001 was \$13.16, \$27.20 in 2000 and \$6.18 in 1999. Under SFAS No. 123, the fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model with the following weighted average assumptions:

	Year Ended December 31,		
	2001	2000	1999
Expected dividend yield	0.0%	0.0%	0.0%
Risk-free interest rate	4.5%	6.4%	6.6%
Expected volatility.....	129.0%	124.0%	150.0%
Expected life (in years)	4.4	4.2	3.0

Because additional stock options are expected to be granted each year, the above pro forma disclosures are not representative of pro forma effects on reported financial results for future years.

The following table summarizes the stock options outstanding as of December 31, 2001:

Exercise Price Range	Options Outstanding			Options Exercisable	
	Number Outstanding at December 31, 2001	Weighted Average Remaining Life (in years)	Weighted Average Exercise Price	Number Exercisable December 31, 2001	Weighted Average Exercise Price
\$ 1.40 — \$ 7.00	1,156,960	1.11	\$ 3.44	1,089,327	\$ 3.42
7.06	1,074,513	2.60	7.06	828,366	7.06
7.16 — 11.61	1,202,743	8.79	11.28	80,196	8.24
12.25 — 23.13	1,026,750	8.56	15.99	119,408	13.63
23.44 — 29.38	566,500	9.26	24.74	198,049	12.44
30.25	1,080,987	3.93	30.25	655,266	30.25
\$30.76 — \$90.50	457,500	4.81	42.94	202,563	43.20
	<u>6,565,953</u>	<u>5.35</u>	<u>\$16.44</u>	<u>3,173,175</u>	<u>\$13.52</u>

Shares Reserved

As of December 31, 2001, the Company had shares of common stock reserved for future issuance as follows:

Stock Option Plans	9,847,579
Warrants to Purchase Common Stock	<u>344,819</u>
	<u>10,192,398</u>

6. Income Taxes

The provision (benefit) for income taxes attributable to continuing operations is based upon income (loss) before income taxes from continuing operations as follows (in thousands):

	Year Ended December 31,		
	2001	2000	1999
Domestic	\$ 7,810	\$ 864	\$(3,874)
Foreign	<u>(1,764)</u>	<u>(780)</u>	<u>(33)</u>
	<u>\$ 6,046</u>	<u>\$ 84</u>	<u>\$(3,907)</u>

The Company accounts for income taxes using SFAS No. 109, "Accounting for Income Taxes". SFAS No. 109 provides for an asset and liability approach under which deferred income taxes are based upon enacted tax laws and rates applicable to the periods in which the taxes become payable.

The provision for income taxes consists of the following (in thousands):

	Year Ended December 31,		
	2001	2000	1999
Federal:			
Current	\$ 34	\$ 0	\$ 0
Deferred	<u>0</u>	<u>0</u>	<u>0</u>
Total federal provision	34	0	0
State:			
Current	111	28	25
Deferred	<u>0</u>	<u>0</u>	<u>0</u>
Total state provision	111	28	25
Foreign:			
Current	107	117	161
Deferred	<u>0</u>	<u>0</u>	<u>0</u>
Total foreign provision	107	117	161
Total provision for income taxes	<u>\$252</u>	<u>\$145</u>	<u>\$186</u>

The provision for income taxes differs from the amount estimated by applying the statutory Federal income tax rate to income before taxes as follows (in thousands):

	Year Ended December 31,		
	2001	2000	1999
Federal tax at statutory rate	\$ 2,205	\$ 80	\$(1,302)
State income taxes, net of federal benefit	72	18	(16)
Foreign subsidiary loss	(188)	(111)	(10)
Tax credits	(2,368)	(742)	(594)
Utilization of net operating losses not previously benefited ...	(4,399)	0	0
Change in valuation allowance	4,924	893	2,101
Other	<u>6</u>	<u>7</u>	<u>7</u>
Total provision for income taxes	<u>\$ 252</u>	<u>\$ 145</u>	<u>\$ 186</u>

The components of the net deferred income tax asset are as follows (in thousands):

	December 31,	
	2001	2000
Net operating loss carryforwards	\$ 31,540	\$ 35,992
Foreign net operating losses carried forward	2,240	1,786
Tax credit carryforwards	8,663	5,040
Capitalized research and development costs	1,303	2,005
Reserves and other cumulative temporary differences	<u>2,719</u>	<u>1,117</u>
	46,465	45,940
Valuation allowance	<u>(46,465)</u>	<u>(45,940)</u>
Net deferred income tax asset	<u>\$ —</u>	<u>\$ —</u>

As of December 31, 2001, the Company had net operating loss carryforwards of \$89.9 million for Federal income tax reporting purposes and \$8.0 million for State income tax reporting purposes, which

expire at various dates through 2021. In addition, as of December 31, 2001, the Company had tax credit carryforwards of about \$10.1 million, which expire at various dates through 2021. Deferred tax assets of approximately \$11.6 million consisting of certain net operating loss carryforwards resulting from the exercise of employee stock options have not been recognized in the financial statements. When utilized, the tax benefit of these carryforwards will be accounted for as a credit to additional paid in capital. The Internal Revenue Code of 1986, as amended, contains provisions that limit the net operating loss and credit carryforwards available for use in any given period upon the occurrence of certain events, including a significant change in ownership interests. The Company has performed an analysis of the ownership changes and has reported the net operating loss and credit carryforwards considering such limitations.

A valuation allowance has been recorded for the entire deferred tax asset as a result of uncertainties regarding the realization of the asset balance due to the history of losses and the variability of operating results. As of December 31, 2001 and 2000, the Company had no significant deferred tax liabilities.

7. Related Parties:

In June 2000, the Company entered into a stock purchase agreement with ENEL S.p.A., an Italian utility company ("ENEL"). At the same time, the Company also entered into a research and development agreement with an affiliate of ENEL. Under the terms of the R&D agreement, the Company will cooperate with ENEL to integrate LONWORKS technology into ENEL's remote metering management project in Italy. For the year ended December 31, 2001, the Company recognized revenue of approximately \$31.0 million related to products and services sold to ENEL and its designated manufacturers. For the period starting September 11, 2000, the closing date of the stock purchase agreement, and ending December 31, 2000, the Company recognized approximately \$727,000 of revenue under the ENEL program. As of December 31, 2001 and 2000, approximately \$23.0 million and \$727,000, respectively, of these revenues were included in accounts receivable.

8. Acquisition:

On February 7, 2001, the Company acquired all of the outstanding capital stock of ARIGO Software GmbH ("ARIGO"), a Beckum, Germany based developer of LONWORKS hardware and software products. The Company paid cash for the acquisition and has accounted for it using the purchase method of accounting. Accordingly, results of operations for ARIGO have been included with those of the Company since the date of acquisition.

9. Subsequent Events (unaudited):

On January 31, 2002, the Company acquired privately held BeAtHome.com, Inc. of Fargo, North Dakota. In exchange for all of the outstanding shares of BeAtHome, the Company paid \$3.0 million in cash (subject to certain adjustments) and assumed certain liabilities. The acquisition will be accounted for as a purchase transaction in accordance with SFAS No. 141, "Business Combinations."

ECHELON CORPORATION
VALUATION AND QUALIFYING ACCOUNTS
(in thousands)

ALLOWANCE FOR DOUBTFUL ACCOUNTS
AND SALES ALLOWANCES

<u>Description</u>	<u>Beginning Balance</u>	<u>Charged to Revenues and Expenses</u>	<u>Deductions</u>	<u>Ending Balance</u>
Year ended December 31, 1999:	\$1,182	483	298	\$1,367
Year ended December 31, 2000:	\$1,367	528	—	\$1,895
Year ended December 31, 2001:	\$1,895	172	—	\$2,067

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ECHELON CORPORATION

By: /s/ OLIVER R. STANFIELD

Oliver R. Stanfield
Executive Vice President and Chief Financial
Officer (Duly Authorized Officer
and Principal Financial and
Accounting Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints M. Kenneth Oshman and Oliver R. Stanfield his true and lawful attorney-in-fact and agent, with full power of substitution and, for him and in his name, place and stead, in any and all capacities to sign any and all amendments to this Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

PURSUANT TO THE REQUIREMENTS OF THE SECURITIES EXCHANGE ACT OF 1934, THIS REPORT HAS BEEN SIGNED BY THE FOLLOWING PERSONS ON BEHALF OF THE REGISTRANT AND IN THE CAPACITIES AND ON THE DATES INDICATED.

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ M. KENNETH OSHMAN</u> M. Kenneth Oshman	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	March 23, 2002
<u>/s/ OLIVER R. STANFIELD</u> Oliver R. Stanfield	Executive Vice President and Chief Financial Officer (Principal Financial and Principal Accounting Officer)	March 29, 2002
<u>/s/ ARMAS CLIFFORD MARKKULA, JR.</u> Armas Clifford Markkula, Jr.	Vice Chairman	March 22, 2002
<u>/s/ ROBERT J. FINOCCHIO</u> Robert J. Finocchio	Director	March 26, 2002
<u>/s/ RICHARD M. MOLEY</u> Richard M. Moley	Director	March 23, 2002
<u>/s/ ARTHUR ROCK</u> Arthur Rock	Director	March 25, 2002
<u>/s/ LARRY W. SONSINI</u> Larry W. Sonsini	Director	March 29, 2002
<u>/s/ M. FRANCESCO TATÒ</u> M. Francesco Tatò	Director	March 29, 2002



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